ROYAL ECONOMIC SOCIETY

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MEMORANDUM No. 22

REPORT ON CURRENT ECONOMIC CONDITIONS

JULY, 1930



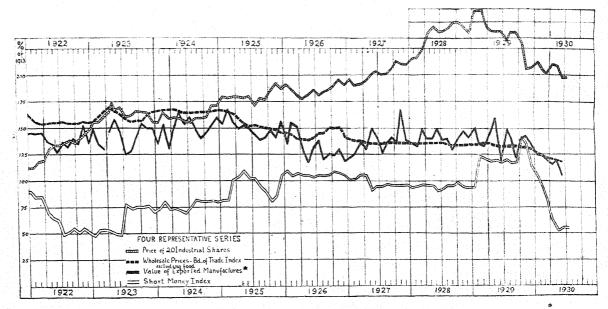
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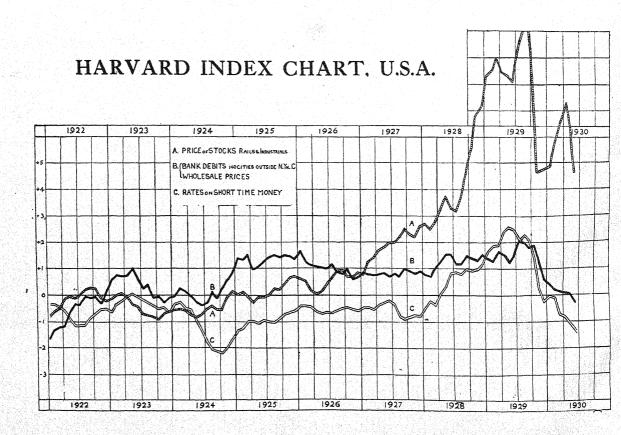
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INDEX CHART, U.K.



* Normal seasonal change removed.



THE GENERAL BUSINESS POSITION.

UNITED KINGDOM.

July 18th, 1930.

reflect the intensification of the depression which, as the June figures show, continued to the end of the period and in some respects was still spreading. The most recent statistics show no improvement and no signs of change: in particular there is no evidence that commodity prices have touched bottom.

In external trade imports of materials (in quantity) continue at a fairly satisfactory level and the export trade is steadier than might have been expected. But

while the benefits of cheap money have not yet accrued to industry, recent gold movements to France (from Holland and the United States as well as from London) have brought an unsatisfactory development in this respect and have tended to shake confidence—probably more than is justified—in the maintenance of a low bank-rate throughout the autumn. It is clear that hopes of an early mitigation of the depression would be premature. The international depression is one of major dimensions, and there is, we believe, no precedent for a recovery in such a case so soon as a year after its first onset.

UNITED STATES. HARVARD FORECAST. (By Cable.)

July 18th, 1930.

HUS far in July business has displayed sluggishness characteristic of midsummer, after failing in June to attain its normal seasonal volume. Partly as a result of this failure, though mainly because of sharp drop in wholesale prices, our business curve in June declined. Clearly business recovery has been delayed, but we are of opinion that foundations for recovery have been laid and that upturn both in wholesale prices and activity, apart from merely seasonal fluctuations, will soon be generally in evidence. Volume of construction projects showed sharp

expansion last month, while the stock market has improved since end of June and commodity markets have been definitely steadier. In all probability these signs of betterment will not prove merely temporary, since they follow declines of great severity and constitute logical sequence to extreme and persistent ease in money. With output of goods still held in check, current readjustments in retail prices make for further inroads of consumption upon supply. Untoward elements have operated to delay recovery, but evidence points to substantial improvement in business during this half year.

UNITED STATES

(Harvard Economic Society).

FINANCIAL AND BUSINESS CONDITIONS. (Extracts from letter of July 5th, 1930.)

THE FINANCIAL SITUATION.—Liquidation in the stock market and reduction of the New York rediscount rate to the lowest level ever established served to augment money ease during June. With easy money, security flotations remained in large volume. Commercial banks continued to add to their holdings of investments, and lately have also been increasing their commercial loans, a development which probably brings to an end the longcontinued liquidation of this class of lending. Money conditions remain wholly favourable to business improvement; and the conflicting movements within business itself are characteristic of the period of stabilization and readjustment leading to recovery.

Although recovery in stock prices often takes place when a period of dull trading follows a decline—a condition existing in May—severe liquidation in stocks was under way during most of June. The decline in prices brought the industrial average not far from the low point of last November, and some 30 per cent. under the high point of mid-April. Since June 24, trading on the stock exchange has again become dull, and irregular recovery in prices has taken

place.

It seems clear that important investment buying has been taking place at recent levels, but it may be premature to conclude that a period of stabilization in stock prices has been reached. It may be pointed out, however, that great ease continues in the money market and that manufacturing activity, when due allowance is made for seasonal changes, has held its own since early spring. Doubtless political uncertainty contributed to the June decline in stocks, but the chief influences responsible were the weakness in commodity prices and the failure of business to show substantial improvement in the past few months.

These latter conditions may have had their maximum effect, however, and we do not believe that they will persist much longer.

Money and Banking Conditions.— Reduction of the New York and other rediscount rates reaffirms the easy money policy of the reserve banks, and assures continued ease. Present short-term rates are very low, not departing greatly from the lowest levels reached in 1924. They will probably not fall very much farther, since the period of seasonal firmness is close at hand. It is highly unlikely, on the other hand, that the full amount of the June-October seasonal increase will be attained; neither in 1924 nor 1927—the most recent years of great ease—did an appreciable advance occur during this interval.

Liquidation in the "all other" (largely commercial) loans of the member banks of the reserve system, which has been a conspicuous feature of the banking situation since November, probably came to an end in June. The last two weeks of the month brought a substantial upturn, which appeared outside New York as well as in that city, and was pretty well distributed among the twelve reserve districts. The period when seasonal advance usually begins is now only a few weeks away. Such expansion, though rarely substantial until after the end of August, appears in bad as well as in good years; last year it occurred early and was well under way by the first of June.

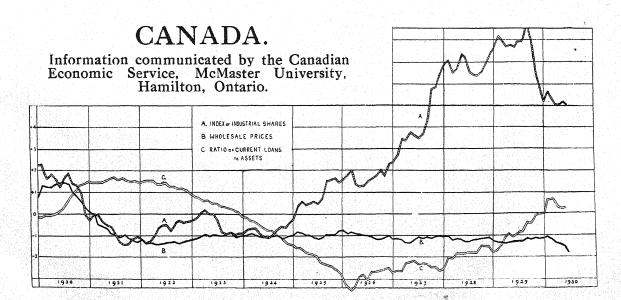
Collateral loans of the reporting banks have declined since the first week in June. Continued additions to investments and the recent advance in commercial loans, however, have exceeded this decline, so that the expansion of bank credit has continued. Regarding the preceding expansion—of collateral loans, it is to be noted that it represented, in large part, the transference of lending for security-market operations

from non-banking to banking sources; and this shifting has subsequently con-The cause of the continued reduction in brokers' loans by "others" is to be found in the steady decline of money rates, which rendered this employment of funds increasingly unattractive. That banks are now doing a larger proportion (some 72 per cent.) of the business of lending to brokers is a salutary development in so far as it reduces one element of instability.

Conclusion. — During June, the favourable effects of the extreme ease in money markets continued in evidence. For another month, flotations of new capital issues by domestic corporations which mean eventual expenditure of funds in materials and labour maketsremained at high levels, and were absorbed by the market without depressing bond prices. Foreign loans, which are favourable to foreign exchanges and our export trade, also remained high—a condition which has doubtless contributed, along with the lowering of the New York

rediscount rate, to the reduction of gold imports to negligible amounts last month. With foreign money rates easy, rectification of the strained international economic situation, which last year was exerting pressure upon foreign exchanges and world commodity prices, is thus in tair way of accomplishment.

Liquidation in the stock market, accompanied by sharp declines in commodities, served to unsettle business opinion during the month. industries, which customarily curtail output in June, reduced activity, but it is still too early to state how these decreases will compare with the usual May-June decline. Consumption apparently continues to be maintained at a better level than production, and new construction projects have recently been in larger volume. Money ease is producing its usual effects upon both domestic and international economic conditions, and the irregular and conflicting movements in business should soon give way to sustained recovery.



July 8th, 1930. (ENERAL business conditions during June showed no signs of hand, except for a growing sense of foreseen by all acute observers some time

pessimism, there were no positively unfavourable developments during the month. The crash on all the stock improvement. But on the other exchanges was inevitable and clearly ago. Prof. Taylor's index of 92 stocks showed a most drastic fall from 133.7 on May 30 to 116.0 on June 27. According to his computation—and it may be regarded as accurate to within a neligible margin of error—stocks are now at their lowest point since August, 1927, and for the first time since January, 1927, are below "normal," as indicated by a curve fitted to stock prices from 1909-1929.

The detail of the Taylor index reveals how drastic was the decline in every division of stocks. If any consolation can be found, it must be sought for in the reflection that, after all, this "secondary reaction" was inevitable and is merely hastening the time when the stock exchanges will be in a position to demonstrate that deflation has run its course at last. It must be remembered that the whole stock movement of 1929 was utterly fictitious, without foundation, and absurd. Although much of that inflation has now been disposed of, there is little to indicate that the time has come when a strong upward movement of stocks may be looked for.

The index number of wholesale prices used on the chart, and marked curve B, declined 4% during June. The figure for the end of June, 1930, was the lowest recorded for any month for the last fifteen years, and the decline was the most drastic recorded for any month since May, 1921.

The sub-index of 20 foodstuffs fell 5% during June to the lowest level recorded in any month since September, 1922. It is quite evident that we are witnessing now the inevitable deflation of meat prices. There is every reason to expect further recessions.

The sub-index of 20 manufacturers' commodities fell 3% during June to the lowest figure recorded for any month during the past sixteen years. Wool was slightly higher in price, the first rally in price for exactly two years. Cotton was lower, silver fell to another record low price for all time, tin, which so far had resisted all declines, fell heavily, pine fell

once more, rubber made another record low price for all time.

It seems to be the fashion at the present moment to attribute all the economic ills of the time to the fall of commodity prices. While there is a good deal of truth in this view, it must also be pointed out that falling commodity prices are in themselves a sympton as well as a cause of "hard times." The price of many, if not all, "luxury" articles, such as radios, motor cars, etc., are falling because people have not the money to spend on them. The price of such articles as tea, spices, rice, tapioca, silk, jute are falling because of the unprecedented decline in the price of silver and the demoralization of the eastern exchanges. How far that condition is curable is very doubtful. The price of grain, more especially wheat, has fallen, not because of "overproduction" of wheat in the world, but because low grade wheat from the Argentine has undersold high grade and high priced wheat from North America. There is a great deal of misapprehension on the score of overproduction. There is no world overproduction of wheat; on the contrary there is severe shortage of foodstuffs in some parts of the globe, notably China. What has happened is that Europe has been unwilling to pay the high prices demanded for North American wheat and has demonstrated its ability to get on tolerably well without it. In the same way there has been no overproduction of anything else, cotton or copper or wool. In an exactly similar fashion the world is showing the producers that it will not pay the prices demanded.

BANK LOANS AND ASSETS.

Mn. dollars.
May, 1930 April, 1930
Total Assets ... 3230 ... 3276
Current Loans ... 1330 ... 1345

The ratio between current loans and total assets of the chartered banks remained at almost the same figure during May as in April. It is likely that this ratio will fall slightly in the coming months, thus following the usual course of this curve as demonstrated in the past.

RECENT MOVEMENTS OF SUBSIDIARY SERIES.

UNITED KINGDOM.

rinance.—There have been only slight oscillations of the security indices during the past four weeks. Money has become slightly easier, but there is no question of a further reduction of the Bank Rate, and there has been a loss of gold to France. A substantial efflux has occurred on every working day in July so far.

GOLD MOVEMENTS TO AND FROM THE BANK OF ENGLAND. £000.

	1926	1927	1928	1929	1930
January February March April May June July August Sept'mber October November December	- 251 + 1387 + 1058 - 259 + 2646 + 1151 + 1768 + 3211 + 159 - 3518 + 543 - 1624	- 16 - 1180 + 401 + 2211 - 1545 - 1140 + 699 - 586 - 770 + 671 - 1212 + 1252	+ 3945 + 21 - 149 + 2403 + 2320 + 8466 + 2106 + 1244 - 4762 - 5233 - 5088 - 6594	- 197 - 1424 + 1680 + 4660 + 5021 - 7085 - 14347 - 6617 - 5615 + 1346 + 2315 + 12035	+3953 +1071 +4794 +7126 -6628 + 73 -2353*
	+ 6271	- 1215	- 1321	— 8228	+8036*

* To July 22nd.

Bankers' Town Clearings show rather less than the usual seasonal rise, and Country and Provincial Clearings have again fallen; the latter only slightly.

New Capital issues in June were very

Bankers' Advances are unchanged, and Deposits and Discounts have increased to the same extent as from May to June last year.

PRICES AND WAGES. — Prices of materials have continued to fall, especially of textiles and non-ferrous metals. Prices of cereals have also fallen, but the index for miscellaneous foods has risen, and the aggregate fall for food is slight. There is as yet no indication whether the minimum has been reached or not. Retail prices of food show the usual seasonal rise, and the index is 5% lower than a year ago.

There have been no important changes in wages since the reduction in the woollen industry.

TRADE AND OUTPUT.—Apart from cotton, imports of materials in June were little lower than in May, and the fall from last year is only proportional to that of prices.

NET IMPORTS OF MATERIALS &Mn.

			15	129	19	50
			May	June	May	June
Cotton			6.1	3.4	3.5	2.3
Wool	•••		5.0	2.5	3.1	1.6
Rubber			0.2	0.2	0.6	0.6
Other	•••		15.0	12.7	11.3	11.8
Total	•••	•••	23.6	19.1	18.5	16.3
			-	AND DESCRIPTION OF THE PERSON NAMED IN	- Magazanan	Designation of the last of the

The retained imports of cotton and wool during the past nine months and the corresponding period a year earlier have been:—

IMPORTS Mn. lbs.

100		Oct	June,	1928-9	Oct	June, 19	29-30
Cotton		•••	1122			869	
Wool	•••		396			422	

In exports there has been a considerable fall. Comparison with last year is difficult owing to the unusual rise from April to May and fall to June last year. The decrease has occurred in most categories except "Vehicles," where the sale of new ships has been considerable this year, following the increase in the tonnage commenced in 1929.

EXPORTS OF BRITISH MANUFACTURES &Mn.

		1929			1930	
	April	May	June	April	May	
Cotton	. 11 [.] 8	12.3	8.8	7.5	7.8	
Vehicles		4.9		4.9		5.3
Other	. 29.5	36.5	26.6	24.3	27.0	22.3
	47.1	53.4	38.4	36.7	39.8	33.8

Exports of coal have been:-

Mn. Tons.	1929	1930
1st quarter	13.1	15.0
2nd quarter	15.0	13.5

The statistics of output of coal iron and steel have fallen for five consecutive months and are seriously lower than a year ago. The tonnage of shipbuilding commenced was also low in the second quarter of 1930. These figures of course have their place in the Index of Production (p. 15).

The tonnage of shipping laid-up has increased considerably.

SHIPPING LAID UP IN U.K. PORTS.

Net Tonnage (000's). 1927 1929 1930 1st of Month For. Brit. For. Brit. For. Brit. For. Brit. 353 228 359 12 312 347 6 January ... 18 12 349 233 884 April 414 926 July October 267

The time-charter rate fell sharply in June, while freight rates recovered a little from the very low level of May.

The tonnage of shipping cleared with cargo in June was lower than a year ago.

The estimated cost of buildings for which plans were passed in the second quarter of 1930 was £20.2 Mn., while the corresponding figure in 1929 was £22.1 Mn.

Unemployment.—Normally there is a slight increase in unemployment in June, but this year the increase is more considerable and is found in nearly all productive industries. Employment in

paper, food, distributive trades, and hotels, &c., has, however, improved a little. Also in the South of England there is a slight improvement.

PERCENTAGE UNEMPLOYED. 1929 1930 May 5:0 June London 4·2 7·2 South-East 7.0 South-West 7.0 9.0 9.4 13.8 18.3 Midlands 8.9 ... 13·3 13·1 North-East 12.8 North-West Scotland 11.2 ... Wales N. Ireland 14.2 14.2 22.9 9.7 9.8 15.3 15.8 Total

Since June 23rd, to which date the above figures relate, there has been a further increase in unemployment.

A quite small part of the increase may be due to the cumulative influence of the new Insurance Act.

FINANCE, TRADE AND INDUSTRY IN THE UNITED KINGDOM IN THE SECOND QUARTER OF 1930.

THE statistics for the past quarter show in nearly all cases a serious fall since the first quarter of this year and also as compared with the second quarter of 1929. The depression that originated last autumn had not had any great influence on the general statistics of production for the first three months of this year, though its effect was evident in employment and exports. It has now spread throughout the major part of industry.

In considering the figures in the Summary of Quarterly Statistics, p. 12, it is important to distinguish those which deal with quantities or numbers and those which state values. For some purposes in the latter, allowance must be made for the fall in prices—11% from June, 1929, to June, 1930, according to the Board of Trade computation.

FINANCE.—The index number of Industrial securities has fallen each

quarter since December, 1928, or, if we look at the monthly figures, from February, 1929. The pronounced fall from February to September last year (262 to 238) has perhaps been forgotten because of the greater fall from September November (238 to 205). Since November the number has oscillated, up to 211 in April and down to 196 at the end of June. The compilation of this measurement is now being reconsidered. but the dates of maxima and minima will probably be unaffected. The index number of fixed interest securities fell from January 1929 (82.1), to September (76.2) and has since September risen irregularly to about 82. As is to be expected these movements are inverse to that of the short money index, which, with the changes in the bank rate, rose in February and September last year, and has since—then fallen to a low level.

Bank Town Clearings have fluctuated -

more than usual, but have not shown any considerable net movement over the twelve months. Country and Provincial Clearings have fallen considerably during the past six months, the latter by twice as much as can be attributed to the effect of the fall in commodity prices.

New Capital Issues for at home and for abroad have been small for more than a year, except for occasional moderate increases in particular months.

Bankers' Advances, after remaining near £970 Mn. for eight months, fell between one or two per cent. in the early summer.

Gold flowed to the Bank of England from October to April, the increase in seven months reaching nearly £33 Mn.; in May and June there was a net loss of £6½ Mn. The net movement from July 1st, 1929, to June 30th, 1930, was an efflux of £½ Mn.

The adverse balance of trade (goods and bullion, &c.) was relatively high in the autumn and winter, but in the second quarter of this year was normal.

PRICES AND WAGES.—The index numbers of wholesale prices both of food and of materials have fallen nearly every month since October 1929, in all 11% according to the Board of Trade, 14% according to the Statist. Of the 11%, 8½ occurred from October to March and the remaining 2½ from March to June; but the Statist index shows a fall of 7½% from end of October to end of March and a further 6½% to the end of June. Food and materials have moved on the whole at nearly the same rate.

Retail food prices, the index number of which is strongly seasonal, fell 5% from July 1st, 1929, to July 1st, 1930. Other constituents of the Cost of Living Index number have hardly changed, so that the fall in the Cost of Living Index is only 4% in the twelve months.

Some wages have been reduced slightly in consonance with the Cost of Living Index number, and in the twelve months there have been reductions in a few other industries; but on the whole

wage-rates have been maintained, and the index number shows a fall of little more than 1% since last August.

TRADE OUTPUT AND EMPLOYMENT.— Of imports, the value of manufactures (which, as pointed out last month, include not only such partly manufactured commodities as steel, but also petrol &c.) has remained at the same level for several quarters. Of food, the usual seasonal movement has been followed, and the reduction in value is nearly proportional to that of price. As regards materials, the analysis cannot be completed till next month; but when cotton and wool (of which detail is given on p. 10) are excluded, the fall in value from the second quarter of 1929 to that of 1930 is only 10%, which is probably near the fall in price of these commodities.

For exports the account is not so favourable. The total for the quarter, including all categories, is 20% lower in value than a year before. For manufactures alone, where prices have not fallen very considerably, the fall is also 20%. Apart from cotton and wool the fall in aggregate value is 14%, and the reduction is spread over many classes.

The output of coal, iron, and steel and especially the amount of shipping tonnage commenced are also considerably

lower than a year ago.

The Production Index numbers of the Board of Trade and of the Bulletin both show a trifling increase from the first quarter of 1929 to that of 1930, but a decrease of 3 or 4% from the 4th quarter of 1929 to the 1st quarter of 1930. This has been followed by a serious fall in the and quarter, so that the index is only 1% above the average of 1924 (which is also approximately the reading for the and quarter of that year). This quarterly index excludes agriculture and also some of the more progressive industries for which statistics are only obtainable annually. Most industries other than food and tobacco contribute to the fall.

From February onwards the number of unemployed insured males has been greater than in 1929. On June 23rd the

total number, males and females, was 1,912,000 as compared with about 1,210,000 a year before. An increase of

* This figure has been raised 4% to allow for the changes introduced by the recent Insurance Act. over 50% is found in many industrial groups, but a still larger increment is in Textiles, which has brought up the unemployed percentage of all females from 6.6 to 15.4.

TABLE A. NET IMPORTS OF RAW MATERIALS (EXCLUDING RUBBER) AND CERTAIN PARTLY MANUFACTURED GOODS. DECLARED VALUES. £ Mp.

	1924. Quarterly Average.	2	1927. Quarters	• 4		Quan	928. ters.	4	1		929 arters.	4	Quan I	30 rters. 2
Pig iron, etc Copper, tin, lead, zinc Yarns Leather	1.8 5.4 1.8 2.9	2·4 5·4 1·6 3·1	1.8 5.1 1.6 2.9	1.8 5.2 1.9 4.4	1.6 5.1 2.0 4.8	1·2 5·2 1·8 3·8	1·1 4·5 1·6 3·7	1:3 5:6 1:9 3:5	1·1 5·0 1·8 2·9	1·4 6·2 2·1 3·1	1·3 5·4 2·0 2·9	1·4 5·8 2·1 4·8	1.6 5.0 1.8 3.0	1.2 4.6 1.5 2.9
Minerals (non-metals) Iron Ore Other Metals Wood Oil Seeds, &c Hides Paper Materials Silk	1·3 2·1 3·7 12·6 12·1 2·0 2·9	1:5† 1:8 4:0 9:1 11:9 :3 3:1	1·3 1·3 4·0 19·4 10·1 3·4 3·4	1.5 1.4 4.2 13.6 9.7 2.6 3.4	1·2 1·3 4·1 6·0 10·6 3·9 2·0	1·3 1·3 4·1 8·2 11·3 1·6 2·6	1:3 1:1 3:7 15:0 10:8 3:9 2:5	1·3 1·1 4·4 12·6 9·4 1·4 3·0 ·6	1·2 1·4 3·9 5·9 11·7 1·2 2·5	1·3 1·5 5·1 7·8 10·7 ·9 3·4 ·4	1.5 1.8 3.7 17.4 9.7 2.9 3.4	1.4 1.8 3.9 13.9 9.8 2.5 3.7	1·3 1·7 3·7 6·9 9·1 2·7 2·9 ·6	1·4 1·6 3·6 9·0 9·2 ·8 3·2 ·3
Other Textiles (except Cotton and Wool) Cotton Wool	3·4 27·5 10·9	3·5 15·5 8·7	1.6 7.9 3.5	4·4 17·0 7·4	5·4 18·1 19·3	2·2 20·2 10·6	1.8 11.6 2.9	3·4 26·5 3·9	4·9 25·2 14·1	3·3 15·4 13·5	2·0 8·6 4·5	4·0 23·6 6·1	4·0 16·3 12·5	2·3 8·7 7·3
Total, both groups and miscellaneous	92.8 {	74·4* } 74·3† }	70.5	82.0	88.6	77:9	68-7	82-7	85:8	78.5	70:3	88-2	75.7	59· 6
Total, excl. cotton and wool	54.4 {	50·2* } 50·1† }	59·1	57:6	51.2	47:1	54.2	52.3	46.5	49.6	57:2	58-5	46.9	43.6

* Including Coal.

† Excluding Coal.

TABLE B.

EXPORTED MANUFACTURES-DECLARED VALUES. & Mn.

	1924 Qrly. Av.	2	1927 Quarters 3	4		199 Quai 2	18 ters. 8	4	1	19 Quar 2		4	Quar 1	
Coke Earthenware Iron & Steel Other Metals Other Metals Cutlery Electrical Goods Machinery Wood Cotton Wool Silk Other Textiles Apparel Chemicals Oils Leather Paper Vehicles Rubber	1.6 3.2 18.5 3.9 2.7 11.2 49.8 17.0 6.4 2.3 1.5 6.4 2.3 1.5	-8 3·1 18·5 4·9 2·2·9 12·1 6·3 36·1 12·1 6·3 5·3 5·3 5·3 2·1 10·7** 8†	1·0 3·2 17·5 4·9 2·9 12·0 ·6 36·7 15·8 ·7 7·2 5·6 2·2 2·2 2·2 7·7* ·8†	1·0 3·4 17·9 5·0 2·4 3·1 14·1 39·2 14·6 7·7 7·7 6·9 6·3 2·4 2·6 2·5 10·5*	.9 3.0 16.6 4.4 2.1 3.0 13.7 39.2 15.6 7.6 6.7 6.3 2.5 2.5 2.5 2.5 2.5 2.8	7 3·3 16·8 4·5 2·9 13·9 33·8 12·6 7·0 5·8 6·5 2·4 2·4 11·0†	.9 3.4 15.7 3.8 2.2 2.8 12.7 .6 36.0 16.0 16.0 1.8 2.3 2.2 2.11.9*	1·1 3·4 17·6 3·7 2·5 2·9 13·6 8 36·3 12·7 7·5 6·6 6·5 2·7 2·1 2·4 12·7*	1·1 3·1 17·3 4·4 2·1 2·8 13·3 37·6 37·6 14·8 6·7 6·3 6·7 6·3 2·1 1·7 2·2 2·3 1·7 2·3 8·4	-8 3·5 16·7 4·6 2·3 3·5 13·5 5·8 32·9 11·5 5·4 6·5 4 2·1 1·9 2·3 13·7 9	1·1 3·7 16·3 4·6 2·4 3·2 13·3 7·3 34·1 15·5 7·0 7·2 2·1 2·5 12·5*	1·2 3·7 17·6 4·6 2·5 3·8 14·3 9 11·6 6·6 6·7 7·7 2·2 2·1 2·8 11·8	1.0 3.3 15.4 3.7 2.0 3.3 13.0 6 30.3 12.2 2.1 1.5 2.3 11.0 8	6 3·1 13·3 3·0 1·9 2·9 12·0 21·6 7·2 ·4 4·9 4·9 1·5 2·1 15·2*
Total, including Miscellaneous	154.7	136.7	141-1	151-8	147-2	139.4	144-6	147.5	145-1	138:9	146.2	143.6	128:4	110:3

* Including rubber tyres.

† Excluding rubber tyres.

IRON AND STEEL STATISTICS FOR U.K. 000 tons.

		F	PIG-IRO	N.				CRUD	e stee	L.	EXPOR IRON &	RTS OF STEEL
		Produc- tion	+ Im- ports	- Ex- ports	=Home Cons'mp- tion	% Imports to Home Consump- tion	Pro- duction	*Im- ports	Home Con- sumption	% Imports to Home Con- sumption	Semi- Finished	Finished
1913	Qrly. aver'ge	2565	46	236	2375	1.8	1916	215	2131	10	209	751
1923	Quart'r 1 2 3 4	1745 2059 1813 1821	41 28 21 11	228 211 137 149	1558 1876 1697 1683	2·6 1·5 1·2 ·6	2144 2338 1902 2105	138 141 140 133	2282 2479 2052 2238	6·0 5·7 6·8 5·9	} 512 } 567	1144 1161
1924	1 2 3 4	1918 1877 1774 1750	66 86 50 87	101 165 96 124	1883 1798 1728 1713	3·5 4·8 2·9 5·1	2279 2173 1862 1902	228 296 256 302	2507 2469 2118 2204	9·1 12·0 12·1 13·7	} 481 } 460	1212 1081
1925	1 2 3 4	1724 1655 1386 1471	83 61 60 60	124 109 87 147	1683 1606 1359 1384	4·9 3·8 4·4 4·3	1942 1835 1708 1913	286 290 276 306	2228 2125 1984 2219	12·8 13·6 13·9 13·8	181 179 188 204	589 572 576 662
1926	1 2 3 4	1604 670 44 124	70 53 109 245	136 74 53 13	1538 649 100 356	4·6 = =	2128 741 180 511	296 277 444 544	2424 1018 624 1055	12·2 	227 170 98 86	704 562 408 409
1927	1 2 3 4	1688 2051 1833 1731	204 180 108 74	40 70 74 92	1852 2161 1867 1713	8·3 5·8 4·3	2507 2482 2107 2003	562 391 356 373	3069 2873 2463 2376	13.6 14.4 15.7	213 298 252 241	564 735 768 782
1928	1 2 3 4	1704 1718 1561 1628	45 22 16 . 9	90 102 89 116	1659 1638 1488 1521	2·7 1·4 1·1 0·6	2184 2105 2034 2202	329 287 252 277	2513 2392 2286 2479	13·1 12·0 11·2	219 246 243 272	734 702 652 720
1929	1 2 3 4	1674 1924 2018 1963	24 20 29 44	117 130 106 103	1581 1814 1941 1904	1-5 0-9 1-5 2-4	2404 2483 2406 2366	200 268 252 270	2604 2751 2658 2636	7.6 9.7 9.5 10.2	265 237 250 258	737 692 653 716
1930	1 2	1923 1797	66 62	91 72	1898 1787	3·4 3·5	2374 1988	334 245	2708 2233	12·3 10·9	225 159	647 567

^{*} Blooms, Billets, Sheet and Tinplate Bars.

SUMMARY OF QUARTERLY STATISTICS

	192	7		19	928			19	29			30
TOTALS.*	3rd Qr.	4th Qr.	lst Qr.	2nd Qr.	3rd Qr.	4th Qr.	lst Qr.	2nd Qr.	3rd Qr.	4th Qr.	lst Qr.	2nd Qr.
BANK CLEARINGS: Town (ex Metropolitan) Country Provincial (11 Towns)	£ Mn. 8701 726 419	£ Mn. 9541 763 449	£ Mn. 9857 770 448	£ Mn. 10080 757 414	£ Mn. 9371 736 391	£ Mn. 10003 776 420	£ Mn. 10316 764 427	£ Mn. 9514 769 387	£ Mn. 9941 757 38 6	£ Mn. 10165 790 399	£ Mn. 10292 771 385	£ Mn. 9782 742 333
BANKERS' ADVANCES: Average for Quarter NEW CAPITAL ISSUES in Gt.	919	916	923	934	932	942	968	980	979	971	973	962
Britain: All For United Kingdom IMPORTS RETAINED:	42·2 21·6	112·9 51·5	103·4 55·5	99·3 61·8	66·6 37·2	93·3 64·7	114·2 69·0	81·3 55·1	28·4 17·5	29·7 17·8	69·5 36·3	72·4 37·4
Food, Drink and Tobacco	125	142	125	122	122	135	125	120	126	139	114	108
Materials: Partly Manufactured Cotton Other Total Wholly Manufactured Goods Total Retained Imports	11 8 53 72 59 258	13 17 53 83 61 287	13 18 58 89 60 277	12 20 44 76 60 261	11 12 46 69 61 257	12 26 45 83 61 282	11 25 53 89 60 276	13 15 53 80 66 268	12 9 53 74 65 268	14 24 54 92 65 299	11 16 51 78 64 259	10 9 43 62 65 233
EXPORTS, BRITISH: Materials Manufactures—Cotton Other Total British Exports	18 37 104 176	19 39 113 191	18 39 108 182	18 34 106 173	16 36 109 180	19 36 111 188	19 38 107 181	21 33 107 178	19 34 112 185	20 31 113 186	19 30 98 164	16 22 88 141
EXCESS OF IMPORTS: Goods and Bullion	87	95	80	100	80	82	92	93	55	125	106	94
TONNAGE OF SHIPS (with cargoes): Entered from abroad Cleared for abroad	0000 1628 169 6	Tons 1509 1552	1349 1511	0000 1541 1606	Tons 1595 1692	1549 1636	1316 1553	0000 1589 1728	Tons 1775 1863	1590 1723	0000 1392 1610	Tons 1659 1656
PRODUCTION: Coal (13 weeks) Pig-iron (3 months) Steel ,, ,, Shipbuilding (commenced)	6113 183 211	Tons 6328 173 200 Tons 377	6536 170 218 342	5792 172 211	Tons 5638 156 203 Tons 245	6154 163 220 432	6813 167 240 362	6265 192 248	Tons 6284 202 241 Tons 360	6701 196 237 499	7014 192 237	Tons 5911 180 199 Tons 230
INDEX OF PRODUCTION: Bulletin % of 1924 Board of Trade ,,	105:9	107:4	105·7 109·3	103·7 103·6	95·4 100·2	105·2 108·4	108·3 110·5	111.0	108.2	114·8 113·9	109·6 110·9	100.9

^{*} Except Bankers' Advances for which mean weekly averages are given.

INDEX NUMBERS.	Date in	1	927		19	28			19	29		19	30
Percentage of 1924 level.*	Quarter			1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	lst Qr.	2nd Qr.
PRICES OF COMMODITIES— General—Board of Trade Statist		85·5 87	84·5 87	84·6 89	85·8 88	82·8 84	83·1 85	84·4 87	81·6 81	81·7 81	79·7 78·5	74·9 74	72·6
Materials—Board of Trade Statist	Last month Last day	82·1 88	81·1 88	81·1 86	81·3 86	79·8 84	80·0 84	81·2 87	79·1 80·5	79·5 79·5	77·1 76	73·4 72	70·4 68
Food-Board of Trade Statist		92·2 86	90·8	91·4 93	94·7 92	88·7 84	89·1 85	90·3 86	86·2 83·5	85·8 83	84·6 81	77·7 76	78.6
Retail—Food Cost of Living		95 95	95 96	91 94	92 94	92 95	93 95	88 92·5	87·5 92	91·5 94·5	92 95	84 90	83
Wage Rates	Fortnight after end	100.5	100.5	100	100	99-5	99-5	99.5	99.5	99	99	98.5	98:
PRICES OF SECURITIES— Industrials Speculative Fixed interest	33 33 33 33 33 23	213 198 78·8	216 194 80:4	239 196 81.6	241 190 81.6	249 210 80·4	259 217 82·1	242 207 79·1	232 210 78·1	228 202 76·5	212 184 77·7	211 192 82-2	198 179 81-1
SHORT MONEY	,, ,,	125	124	124	120	129	125	158	160	189	136	82	6

^{*} Except for securities which are still on 1913 base.

principal countries concerned.

	THE RESERVE OF THE PARTY OF THE			NAME OF TAXABLE PARTY.
	2nd Qr. 1929 1930	2nd Qr. 1929 1930	2nd (1929	Qr. 193
	£000	€000	£00	00
OTTERY, Etc. J.S.A	210 172 76 37 102 95 62 55 67 51 173 103 63 59 268 235 499 481	Other Countries 178 221 New Zealand 816 1103 Other Countries	6157 270	373 2 2 11 2 2 18
IGIRON & FERRO ALLOYS Belgium France Ltaly U.S.A Other Countries	1520 1288	MACHINERY (Electrical).	23865 1 287 163 843 63 349	148
U.S.A Other Countries	155 66 288 25 779 47	MACHINERY (Prime Movers, not electrical).	2512 74	
PLATES & SHEETS (not coated). Japan British India Australia & New Zealand Other Countries	184 9 98 8 228 10	Russia	428 146 153 232 164 428	
ALVANISED SHEETS.	97 6	1230 1047 Chile and Peru Brazil, Uruguay, Argentine	162 650	
Dutch E. Indies	65 5 104 11 227 12 766 45 369 11 175 8	TEXTILE MACHINERY.	1016 5848 189 440 96	
SHEETS (Tinned, etc.) Norway	64 4 106 10	Other Countries 170 106 Australia and New Zealand Canada Other Countries Other Countries	144 63 449	
Germany Netherlands France Spain Italy Othina (with Hong Kong) Japan Brazil Argentine British India Straits Setts. and Malay Australia Canada Other Countries	188 16 266 9 109 19 114 10 123 9 129 11 110 5 123 12 123 12 124 12 125 12 126 12 127 12 128 12 129 11	COTTON YARN Norway, Sweden, Denmark 164 164 164 164 1798 1244 1798 1244 1798 1244 1798 1244 1798 1244 1798 1244 1798 1245 1798 1245 1798 1245 1798 1245 1798 1245 1798 1245 1798 1245 1798 1245 1798 1245 1798 1245 1798 1245 1798 1245 1798 1245 1798	508 57 124 76 807 1572 352 190 133 430	
COPPER MANUFACTURES Egypt British India Australia New Zealand	84 6 40 5	Solution Solution	. 150	
Other Countries TIN (Blocks, etc.)	331 3: 492 4'	1 Switzerland 532 348 U.S.A	. 590 573 1457	7
Sweden	100 159 12 732 3 45 525 3	1 Argentine, Uruguay 1482 1201 British India 2 Colombia 418 103 Australia and New Zealand .		2 2

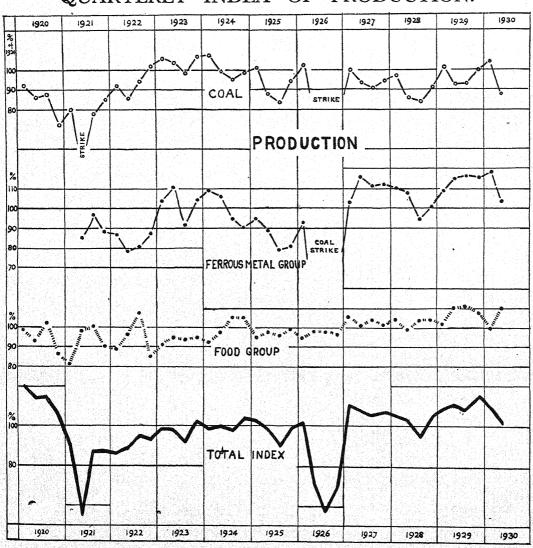
THE PHYSICAL VOLUME OF PRODUCTION.

THE Index Number of Production for the second quarter of 1930 is 100.9; this is nearly 9 points lower than the figure for the previous quarter and about 9 points lower than the figure for the second quarter of 1929. Normally there tends to be a seasonal drop in the Index Number for the second quarter compared with the first quarter, this is noticeable in 1925, 1927 and 1928, the lower coal production having a great influence; but this seasonal drop is probably not sufficient to account for the whole of the 9 points difference between the first and second quarters' figures, and we are therefore driven to the conclusion that the tendency to decline noted last

quarter has been maintained. Production in 1930 so far is at a definitely lower level than in 1929.

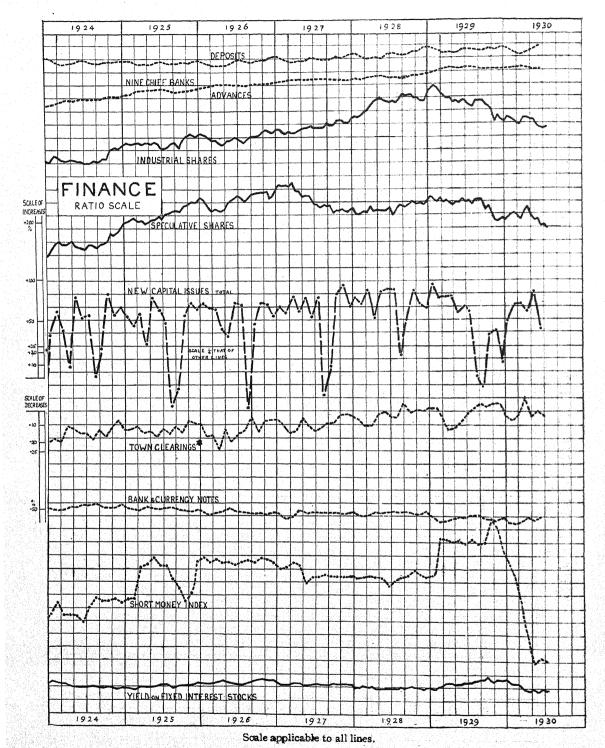
Some of the individual industries' figures emphasise this point. The Coal figure is low, as is usual in the second quarter, but is lower than in the second quarter of 1929; the Iron and Steel figure shows the same tendency. The Non-Ferrous Metal figure is generally high in this quarter, but this year, though high, it is not so high as in 1929. The Textile figure is very low and the Chemical figure also is low. On the other hand the Food figure is maintained at the same level as in the corresponding quarter last year.

QUARTERLY INDEX OF PRODUCTION.



QUARTERLY INDEX NUMBERS OF PRODUCTION. Average 1924=100.

Group:	Industry	Average quarterly production, 1924.	Weights	Year, 1924	1925	1926	1927	1928	1929	1930
ä	1 .	1	ıts.	ii lama	1084	чама	чика	ಆ ಬ್ಬಲ್	чака	-10
ī	Coal- mining.	000 tons 67,308	232	107.3 99.3 95.0 98.4	100:8 87:8 83:6 94:4	102:5 29:8 10:4 41:6	100.0 93.5 90.8 94.1	97.1 86.1 83.8 91.4	101.2 93.1 99.5	104.2
	Pig. Iron.	000 tons 1,827	128	105.0 102.8 97.1 95.3	94.4 475.9 80.5	87.8 36.7 2.4 6.8	91.8 112.5 100.3 94.8	93.3 94.0 85.4	91.6 105.3 110.5 107.5	105.1
	Steel.	000 tons 2,050	36	111.2 106.0 90.8 92.8	94.7 89.5 83.3 93.3	103·8 36·1 8·8 24·9	122:3 121:1 102:8 97:7	106:5 102:7 99:2 107:4	117.0 121.1 120.0 115.4	118.4
Ħ		000 tons 1,373	es es	100.0 106.7 105.1 90.1	79:5 74:1 67:6 57:4	55.6 55.6 48.6 48.1	87.2 100.6 111.8 114.7	104:9 87:6 79:4 90:5	98-8 105-9 105-4 113-6	117.6
	Ship-Railway building Venicles	tons 9,929	9	142.7 112.9 78.3 66.1	167.9 150.0 111.9 98.5	188'6 149'1 94'0 82'6	67:0 155:7 196:3 244:6	199.3 285.1 154.2 126.2	139.9 131.6 152.8 149.9	149.0 180-8
	Group Index.		341	109.0 106.2 94.6 90.6	95·1 89·2 79·4 81·1	92·8 49·4 25·1	103.4 111.3 112.0	110°1 107°7 94°9 100°8	109·1 114·8 116·4 115·9	118:1
	Copper.	tons 39,626	99	96·9 93·8 104·1 105·0	97.4 95.7 104.8 94.3	110:9 95:8 118:8 116:7	119-7 132-0 112-4 125-9	125.8 126.1 120.6 118.2	117.4 120.8 114.7 120.1	103·1 121·1
III.	Lead, Tin and Zinc.	tons 87,967	69	96.4 87.3 118.5 97.7	102.3 108.9 117.0 124.9	123·8 111·1 110·4 121·5	151.6 115.8 124.4 114.2	109.9 120.0 94.3 106.5	120·3 120·3 120·4 109·7	119.7
	Group Index.		52	96.6 90.4 111.6 101.2	100.0 102.6 111.2 110.3	117·6 103·8 114·4 119·2	125·9 123·5 118·7 119·8	117·5 122·9 106·9 112·1	111.5 120.5 117.7 114.7	111.8
	Cotton.	bales 689	88	104·2 90·4 79·7 126·0	136·9 120·6 101·6 135·1	135.0 102.8 81.7 107.2	142.8 120.2 109.6	114.4 109.0 92.9 115.0	117.6 111.4 85.8 118.6	107.3 86.4
IV.	Silk.†		07	74.6 94.3 111.5 119.5	112.2 152.0 81.9 79.3	92.7 96.5 86.3 105.0	108-2 101-8 96-9 147-6	151·1 136·6 140·8 . 158·0	147.3 142.2 162.8 175.0	159.0 127 [.] 0*
	Group Index.		216	101.0 90.8 83.2 125.3	134.2 124.0 99.5 129.0	130.4 102:1 82:2 107:0	139.0 118.2 108.2 113.5	118-4 112-0 98-1 119-7	120°8 114°7 94°1 124°5	112.9 90.8*
	Wheat and Flour.	000 cwts. 31,914	90	85.4 99.6 111.6 103.3	89.2 89.3 88.4 91.1	82:2 87:0 84:0	92.4 103.6 98:0 92:3	93-2 86-4 92-7 91-8	87.0 94.9 100.1 91.4	81.3 91.8
•	Cocoa.	ewts. 259,231	TJ.	109.6 89.6 88.7 112.1	109.9 113.3 99.2 112.1	119.3 114.4 87.6 113.9	144.3 82.4 102.8 101.3	121.4 103.7 102.5 101.0	115·3 116·7 103·4 108·3	99-9 121-7
ν.	Tobacco	000 1bs. 36,477	78	95.6 99.7 101.9 102.7	96.3 105.2 110.2 108.5	102.5 112.7 104.8 112.8	107°2 110°0 118°7 121°9	116.9 124.3 127.7 133.6	123·3 139·1 141·1 142·1	138.3
	Group Index.		500	92.5 97.8 104.9 104.8	94.8 97.8 96.0	95.3 98.6 97.8 96.8	105.7 101.4 104.2 101.6	104.4 99.3 103.5	101.9 110.6 111.3 107.9	99.8 110.3
Δ	Oil Seed crush- ing.	000 tons 435·3	1	109·9 97·8 87·8 104·5	118·2 91·1 93·0 84·6	92.8 84.6 80.4 59.7	82.8 77.5 66.8 70.6	98.8 99.8 79.5 72.7	109·2 86·0 69·7 87·7	79·7 69·2
VI.	Group Index (incl. heavy Chemi- cals.)		62	95.4 103.0 101.0 101.2	107.6 94.4 82.4 87.4	90.0 79.5 72.6 84.4	107.0 92.6 92.8 97.9	104.8 103.8 93.3 102.7	100·1 102·1 103·4 105·4	94. 5 88.5*
VII.	Paper.	000 tons 244.3	86	53.7 104.9 127.2 114.2	77.3 99.4 108.6 111.2	91.7 114.4 114.8 103.5	109.0 112.1 126.4 124.2	82.4 118.0 99.8 122.9	111.2 136.6 139.7 147.0	116·3 127·0
	Final Index.		1183	98.8 99.9 97.9 103.8	102.6 98.2 90.1 99.1	102.2 72.0 57.3 69.7	110.8 108.1 105.9	105.7 103.7 95.4 105.2	108.3 111.0 108.8 114.8	9.601



* NORMAL SEASONAL CHANGE REMOVED.

FINANCE.

	STOCKS & SHARES. NEW					w l	BANE	. 8.			OTI	ier b	ANKII	NG.			Š.	IV.	IONEY	•		
	P	rice of	- 1	of Yield on	CAPIT	LAL		n Bank ing Ho	ters'	Pro- vincial	Ban Engl					aring iks.			BILLS.	Index.	rate.	rate.
	20 industrials	8 speculative	4 fixed int	4 fixed int.	for U.K.	for Abroad.	Tov	m.	Country.	11 Towns.	Private Deposits.	Bank and Currency Notes. †	Deposits.	Discounts.	Advances.	!Invest- ments.	Ratio of Cash to Deposits.	Ratio of Advances to Deposits.	TREASURY	Short Money 1	Day to day	3 months,
	Per ce	nt.ofp	re-war	level	£Mn.	£Mn,	£M	n.	£Mn.	£Mn.	£Mn.	£Mn.	£Mn.	£Mn.	£Mn.	£Mn.	%	%	£Mn.	55	%	%
1924 Average	160	157	80.7	124	7.4	11.2	2070	*	226	147	109	390	1632	2 42	791	324	11.7	48.5	601	100	2.43	3.45
1925 1st Qr. Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	179 179 176 188	185 186 196 209	81·9 80·3 90·2 78·8	122 124 125 126	13·8 14·6 3·8 11·9	5·3 7·8 3·1 13·1	2230 2140 1950 2140	2130 2080 2100 2230	235 235 221 234	150* 140* 135 146	114 107 112 110	382 386 385 379	1634 1609 1619 1631	227 199 231 237	827 849 841 841	289 273 257 261	11.8 11.9 11.9 11.8	50·6 52·7 52·0 51·5	611 573 615 641	116 138 125 119	3·10 3·96 3·41 3·42	4·03 4·46 4·08 4·01
1926 1st Qr. Av 2nd ,, ,, 3rd ,, ,,	187 182 184	205 207 219	78·6 78·5 78·6	127 127 127	14·7 8·1 8·5	11·3 9·8 6·2	2070 2100 1990	1970 2040 2150	231 219 205	141 123 117	107 103 108	371 381 374	1610 1600 1634	209 195 226	866 875 874	255 244 247	11·7 11·9 11·8	53·8 54·6 53·5	611 578 624	140 137 137	4·15 3·92 3·95	4·5 4·3 4·4
OCT NOV DEC 1927	. 190 . 197 . 192	226 225 220	77·1 77·6 77·6	130 129 129	13·9 18·7 14·4	15·3 9·4 5·8	2160 2180 2120	2240 2250 2260	227 224 227	127 126 131	104 100 109	372 368 374	1649 1648 1688	225 220 231	885 887 889	250 252 251	11·7 11·6 12·0	53·7 53·8 52·7	660 668 674	141 141 138	4·12 4·00 3·95	4·6 4·7 4·4
JAN FEB MAR APR MAY JUNE	191 192 194 200	237 235 241 226 220 214	79·8 79·6 78·8 78·6 79·6 78·8	126 126 127 127 126 127	10·3 15·4 27·7 13·1 23·9 12·4	16·0 6·5 7·0 9·2 ·6 7·6	2285 2190 2210 2380 2170 2210	2180 2070 2100 2310 2170 2090	240 225 289 244 240 229	135 134 136 132 134 126	112 102 102 97 100 98	359 365 380 373	1694 1653 1632 1642 1650 1685	244 220 196 196 197 207	898 902 910 912 913 915	243 239 236 237	11.6 11.7 11.6	53.0 54.6 55.8 55.6 55.3 54.3	675 649 603 563 569 592	133 135 138 136 120 125	3·79 3·85 4·08 3·92 3·63 3·50	4·2 4·1 4·3 4·2 3·6 4·3
JULY SEPT OCT NOV DEC	201 201 205 213 211	206 208 206 198 200 196	79·0 79·0 78·9 78·8 79·1 78·9	127 127 127	16·3 2·1 3·2 14·8 23·2 13·6	1·8 22·9 25·6	1940 2140 2260 2280	2160 2220 2230 2340 2360 2330	239 219 213 242 236 236	135 129 123 144 137 138	100 100 100 102 99 102	376 374 376 373	1682 1669 1668 1710 1694 1729	205 211 232 233	919 918 920 918 918 914	236 234 238 238 236	11.5 11.5 11.4 11.3	55·0 55·2 53·7 54·0	617 641 648	125 128 126 125 125 125 125	3·47 3·85 3·67 3·60 3·56 3·60	4·3 4·3 4·3 4·3 4·3
1928 JAN FEB MAR APR MAY JUNE	217 225 239 246	194 193 194 196 197 197	80.4 80.2 80.6 81.6 81.7	125 124 123 123	18·7 10·6 25·8	5·3 23·0 8·0 13·5	2290 2300 2440 2400	2270 2170 2180 2370 2410 2310	247 235 229 252 246 229	140 137 137 143 134 122	110 101 104 102 95 103	364 367 376 372	1747 1698 1672 1690 1688 1733	224 196 197 199	930 935 937	3 244 0 238 5 233 7 239	11.0 5 11.1 3 11.1	54·1 . 55·6 . 55·3 . 55·5	597 542 520 535	124 124 126 124 123 117	3·40 3·56 3·79 3·75 3·63 3·17	4· 4· 4· 3· 3·
JULY AUG SEPT OCT NOV DEC	243 248 249 245 239	190 204 201 210 206 204	80.5 80.7 81.1	124 7 124 1 124 1 123	5·5 7·6 29·7 17·0	1.0 10.7 10.9 11.0	2230 7 2300 9 2350 0 2330	2430	244 236	132 116 117 130 125 140		374 374 369 367	1749 1739 1739 1753 1753 1759 180	2 254 2 244 3 248 2 248	939 939 939 949	2 23' 0 24' 9 24' 2 24	7 11·1 4 11·2 3 11·0 1 11·0	53.8 52.7 53.6 53.8	609 622 654 703	120 124 126 130 125 123	3·38 3·48 3·69 4·06 3·52 3·25	3· 4· 4· 4· 4· 4·
1929 JAN FEB MAR APR MAY JUNE	259 262 247 242 240		79·1 79·1 79·2	5 124 L 127 L 127 2 126	26.2 7 24.8 7 28.8 3 12.3	6·8 9·6 8 6·6	3 2440 2230 2210 3 2250	2310 2120 2150 2250	236 237 253 241	131 138 136 127 118 122	63+3 61+3 61+3	56 353 58 355 56 359	180: 177' 173: 174: 173: 177:	7 260 9 214 3 191 2 198	96 98 98 98	8 24 0 24 7 24 7 24	6 10.8 4 10.6 4 10.8 4 10.8	5 54.8 5 56.4 3 56.4 9 56.4	774 712 712 707 702 756	158 159 156	3.54 5.06 4.58 4.44 4.69 4.23	
JULY AUG SEPT. OCT NOV DEC	238 238 228 205	211 211 202 182	76.9 76.9 76.9	130 2 131 5 131 2 130	2·2 1·5 1 7·1	2 1.4 5 1.2 5 4.0 5 6.6	4 2250 2 2410 2 2440 6 2450	2560 2510 2530 2530	226 224 248 242	112 114 123 123	65+ 63+ 70+	36 367 36 371 36 362 37 360 42 358 36 365	177 175 175 176 176 177	9 225 1 222 5 227 L 231	98 97 97 97	0 24 1 24 1 24 0 23	2 10° 2 10° 1 10° 5 10°	7 55.4 9 55.4 7 55.6 3 55.4	7 776 1 772 0 787 4 792	156 157 189 177	4·73 4·13 4·21 5·27 5·38 4·64	5.65
JAN FEB MAR APR MAY JUNE	206 200 211	192 182 192 183	78: 2 80: 2 82: 7 81:	7 12: 3 12: 2 12: 2 12: 2 12:	9 11:3 8:0 5 16:9 2 11:9 3 17:8	18.5 9 9.7 9 9.7 3 20.	2 2400 4 2770 4 2340 1 2360	2280 2630 2280	236 234 249 235	121 120 114 104	166+	36 352 35 348 36 350 36 361 36 356 35 364	176 171 168 171 174 178	1 218 2 183 2 207 2 246	977 977 976 95	3 22 6 22 0 22 7 23	9 10.6 5 10.8 5 10.9 1 10.7	5 56.6 5 58.0 7 56.1 7 54.9	8 678 0 615 7 571 9 585	125 104 82 68	3·85 3·35 2·23 1·94	2 2
JULY			81.			.].	1			1.		36 364							633	69	1.88	2

STOCKS & SHARES-NEW CAPITAL ISSUES-BANK CLEARINGS-

BANK OF ENGLAND-PRINCIPAL BANKS-

Index Nos. of Prices and Yield as percentage of 1913 average; on 15th of month.—PREPARED BY JOSEPH KITCHIN.

Issues during month in Gt. Britain (a), for U. K. (b), for Abroad, excluding Government loans, etc.—See MONTHLY REVIEW OF THE MIDLAND BANK, IID.

Total of Town Clearings (i.e., excluding Metropolitan) of London Bankers' Clearing House for 3 weeks covering 2 Stock Exchange settlement days, Consols settlement day, and 4th of following month. Country Clearings of London Bankers' Clearing House and Provincial Clearings for 11 towns—proportionate totals for 24 working days. Deposits, other than public, 11th-17th of month.

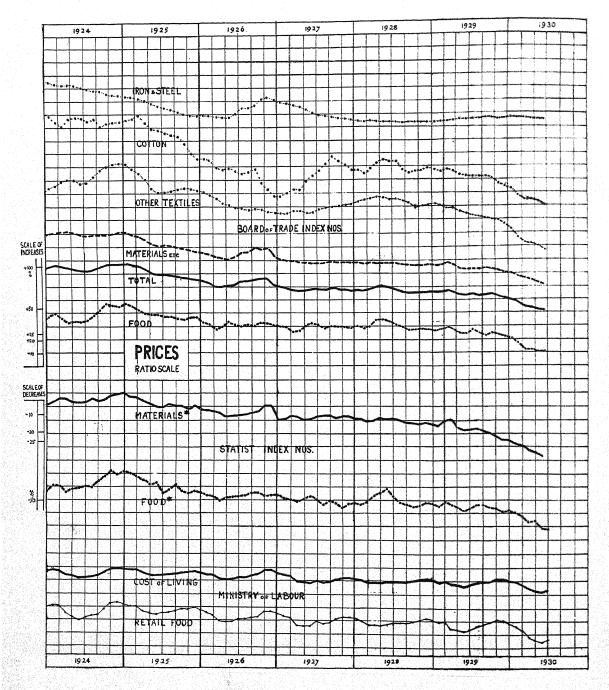
Bank Notes and Currency Notes in circulation 11th-17th of month. Issues amalgamated, November 22nd, 1928. "Current, Deposit and other accounts," etc. Averages for the month of 9 clearing banks (i.e.—excluding the National Bank, Lid.).—MONTHLY REVIEW OF THE MIDLAND BANK, LITD.

Total outstanding in middle of month (11th-17th).

Average of Bank Rate, Bankers' Deposit Rate, 3 Months' Bill Rate and day-to-day rate for week ending 15th of month, expressed as percentage of 1924 average.

Day-to-Day Rate and 3 Months' Rate. Averages for week ending 15th of month.

[•] TREASURY BILLS— SHORT MONEY INDEX—



Scale applicable to all lines.

⊁ NORMAL SEASONAL CHANGE REMOVED.

PRICES AND WAGES.

U.S.A. PRICES.

				WHOLESA	LE.				RETA	IL.	WAGES.	BUREA	UOFL	
	Bar Silver (Cash).	Board of General.	of Trade Inc Food.	lex Nos. Materials. etc.	Statis Foo		eck) Index l Raw Materials,	Nos.	M. of L Cost of Living.	abour. Food.	New Index of Average Weekly	Wholesale Index General	Retail Index (Food)	Cost off Living All items
	d. per oz.	%	%	%	%	%	%	**************************************	%	%	Wages.	× %	%	%
1924 Average. 1925	34.0	100	100	100	100	*	100	100	100	100	100	100	100	100
1st Qr. Av 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	32·2 31·4 32·4 32·3	101.6 96.0 93.9 92.0	105·6 100·6 98·3 97·2	99·4 93·6 91·6 89·2	105 97 96 93	104 97 96 94	101 96 96 95	103 97 97 95	101 99 100 101	102 98 100 101	100·5 101 100·5 100·5	106 5 104 106 106	104·5 104 110 113	102* 104‡
1926 1st Qr. Av 2nd ,, ,, 3rd ,, ,,	31·0 30·2 29·1	88·6 87·2 90·2	92·8 93·1 92·5	86·3 84·1 89·0	91 92 93	90 91 9 3	92 89 90	92 90 91	98 96 98	96 94 95	100·5 100·5 100	104 102 101	111 110 107	102*
OCT NOV DEC	25·7 25·2 24·8	91·5 91·7 87·9	94·3 94·2 93·2	90·0 90·4 85·1	90 90 91	9 2 9 2 92	97 96 88	94 94 89	102 102 100	99 99 98	100 100·5 101	101 100 100	110 111 111	103
1927 JAN FEB MAR APR MAY JUNE	25·5 26·4 25·4 26·1 26·0 26·3	86·4 85·8 84·6 84·2 84·9	92:3 91:6 88:4 89:1 91:9 93:9	83·3 82·7 82·6 81·5 81·3 80·9	90 89 89 91 92	90 89 88 89 91 89	88 89 88 87 87	89 89 89 89 89	98 98 94 94 93 95	96 95 91 90 90 93	101 101 101 101 100·5 100·5	98.5 98 96 95.5 95.5 95.5	109 107 108 105 106.5 109	101
JULY SEPT. OCT. NOV. DEC.	25·9 25·1 25·6 25·7 26·6 26·8	84·9 84·8 85·5 85·1 84·9 84·5	92·4 90·9 92·2 91·7 91·4 90·8	81·1 81·7 82·1 81·7 81·6 81·1	87 88 86 83 85 86	86 88 87 84 87 87	88 89 88 89 89	88 88 87 87 87 87	94 94 95 97 97 96	92 92 95 96 96 95	100 101 101- 100·5 100·5 100·5	96 97 98 99 99	105 104 105·5 107 107	100:5
1928 JAN FEB MAR APR JUNE	26·2 27·4	85·0 84·3 84·6 86·1 86·4 85·8	92·1 91·1 91·4 95·4 95·8 94·7	81·3 80·9 81·1 81·3 81·6 81·3	86 89 93 94 97	86 88 92 9 3 96 91	87 86 86 88 86	87 87 89 90 91 88	95 94 94 94 94 94	93 91 91 90 92 92	100·5 100 100 100 100 100	98 98 98 99 100 5 99 5	106 104 103·5 104 105·5	99:8
JULY AUG. SEPT OCT. NOV. DEC.	27·2 27·3 26·5 26·8 26·7	84·9 83·8 82·8 83·1 83·0 83·1	91·9 90·7 88·7 89·2 89·3 89·1	81·3 80·3 79·8 79·9 79·7 80·0	88 85 84 84 85	87 86 84 85 86 86	85 84 84 84 85 84	87 85 84 84 85 85	94 94 95 95 96 95	92 92 92 93 94 93	100 99·5 99·5 99·5 99·5 99·5	100 101 102 100 99 99	105 106 108 107 108 107	100
1929 JAN FEB MAR APR MAY JUNE	25·8 26·0 25·9 25·3	83·2 83·3 84·4 83·4 81·7 81·6	88·7 89·4 90·3 88·5 86·3 86·2	80·3 80·0 81·2 80·7 79·3 79·1	85 87 86 86 82·5 83·5	85 87 85 85 81:5 82:5	84 86 87 82 80 5 79 5	84 86 87 84 81	94 95 92·5 92 91·5	91·5 92 88 87·5 86 87·5	99·5 99·5 99·5 99·5 99·5 99·5	99 98.5 99.5 98.5 97.5 98.5	106 106 105 104 105 106	99.1
JULY AUG. SEPT. OCT. NOV.	24·2 24·2 23·8 23·0 22·6	82:7 81:8 81:7 81:9 80:6 79:7	89·4 86·8 85·8 87·2 85·6 84·6	79·2 79·1 79·5 79·1 78·0 77·1	86 84·5 83 82·5 80 81	85 85 84 83.5 81.5 82	80·5 80 79·5 78 76 76	83 82 81 80 78 78 5	93 93·5 94·5 95·5 95·5	90 90.5 91.5 93.5 93.5 93.5	99·5 99·5 99 99 99	100 99.5 99.5 98 96 96	109 110 110 110 109.5 108	100
1930 JAN FEB MAR APR MAY JUNE	. 19·2 . 19·5 . 19·2	78·8 76·9 74·9 74·4 73·3 72·6	83·4 81·0 77·7 77·6 76·5 76·6	76:3 74:7 73:4 72:6 71:5 70:4	80·5 79 76 77 73 72	80·5 79 75·5 76 72 71·5	74 73 72 70 69 66	77 75 74 73 71 69	94 92 90 89 88 89	90 [.] 5 88 84 82 81 83	99 98·5 98·5 98·5 98·25 98·25	95°2 93°9 92°6 92°5 90°8 88°5	106.5 105 103 104	
JULY	. 16.0	<u> </u>	NODMA	L SEASO	NAL WA	DIATIO	N PEMO	VED	1	•	98:25		rent resti June 1 D	

PRICE OF SILVER-

Average (cash) price of bar silver for week ending 15th of month.—ECONOMIST.

BOARD OF TRADE INDEX—Geometric Mean of Wholesale Prices (averages for month) of 150 commodities as percentage of 1924 average.

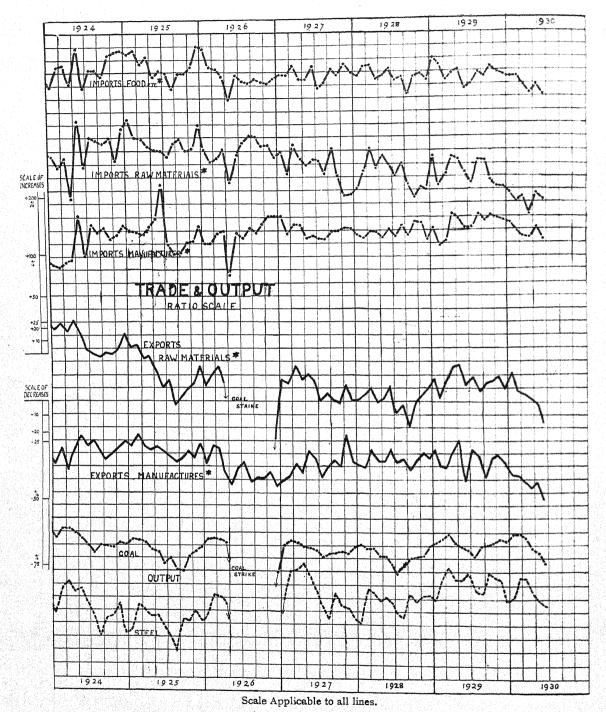
—BOARD OF TRADE JOURNAL.

STATIST (SAUERBECK)
INDICES—
COST-OF-LIVING INDEX—

Average wholesale prices of 19 foodstuffs and 26 raw materials on last day of month, as percentage of average for 1924.—STATIST.

RETAIL FOOD PRICES-WAGES INDEX- Ministry of Labour's index showing movement since 1924 in cost of maintaining unchanged the standard of living prevalent in working-class households before the war. For 1st of month, but placed against previous month—e.g., reading for March 1st is shown against February—to facilitate comparison with "Stakist" index. As above, for food only.

For description see Special Mem. No. 28.



* NORMAL SEASONAL CHANGE REMOVED.

TRADE AND OUTPUT.

	TOTAL IMPORTS (Values).								EXP	ORTS (F U.	K∙ GO	ods	(Values).		01	UTPUI	1	SHIP. B'LD'G		
	Food, Drink and Raw Manu- Tobacco. Materials, factures. Miscellaneous)		TOTAL. NET IMPORTS.	Fo Drinl Tobs	od, s and acco.	Ra Mater		Ma factu		Tot (include Miscella	ling	Coal.	Pig Iron.	Steel.	Tonnage Com- menced:						
	£Mn.		£Mn		£Mn.		£Mn.		£Mn.	£Mn		£Mn.		£Mn.		£Mn.		Tons Mn.	Tons 000	Tons 000	Tons 000
1924 Average.	47:6	*	33.3	¥	25.0	×	106.4	*	94-8	4.7	*	8.9	*	51.6	*	66-8	×	21.2	520	641	263
1925 1stQr.Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	47:9 45.4 44:7 52:8	51·2 47·0 43·8 49·2	42·0 31·3 27·9 40·6	38·1 33·7 34·3 35·6	31·3 23·1	26·4 31·4 23·3 25·7	117·3 108·6 96·1 119·2	116·2 112·6 101·9 110·8	104·0 95·4 84·3 105·4	4·7 4·1 4·5 5·0	5·7 4·7 4·1 4·2	8·1 6·9 6·1 7·0	8·2 7·1 6·1 6·7	55·3 49·0 50·0 51·2		69·6 61·3 62·2 64·6	69·9 64·7 60·1 63·4	21·3 19·2 17·8 19·7	537 509 422 448	608 589 524 597	202 190 261 161
1926 1stQr.Av. 2nd ,, ,, 3rd ,, ,, OCT NOV DEC	46·1 40·8 43·8 46·9 45·4 46·4	49·1 42·3 43·0 42·8 42·2 43·8	35.0 28.4 30.5 34.8 38.7 37.4	31·8 30·6 36·1 34·3 34·5 31·6	24·2 26·3	25·1 24·2 26·5 28·3 29·7 29·7	107·1 93·7 101·0 111·0 113·3 113·3	106·4 97·4 106·0 105.7 106·8 105·7	94·8 83·9 92·4 100·6 102·3 101·8	4·2 3·6 4·3 4·5 4·9 4·5	5·1 4·2 3·9 3·6 3·8 4·5	6·7 3·8 2·0 2·6 2·7 4·2	6·9 4·0 2·0 2·6 2·7 4·2	50.9 40.9 45.0 44.9 44.1 38.6	50·2 43·1 43·7 42·5 44·4 40·0	63·2 49·5 52·6 53·2 53·1 49·7	63.5 52.5 50.8 49.9 52.3 51.1	21·5 17·2	499 207 13 12 12 89	665 245 56 87 89 306	193 168 68 152
1927 JAN FEB MAR APR MAY JUNE	44·2 38·2 46·9 41·3 41·9 46·9	45.0 45.0 47.9 43.5 43.5 47.6	39·5 29·5 35·2 30·7 28·2 27·0	33°1 28°2 34°7 31°3 30°0 31°2	25.6 30.9 28.4 25.9		113.6 93.9 113.5 100.8 96.4 99.3	108:3 100:2 111:1 103:2 99:4 104:9	103·7 83·0 102·7 88·8 84·0 88·7	4·1 3·8 4·3 3·6 4·3 3·6	4·9 4·9 5·0 4·4 4·9 4·1	6.6 6.2 7.3 6.3 7.4 6.3	6.7 6.5 7.3 6.7 7.0 6.6	43.7 41.6 49.1 41.5 50.3 44.9	41.9 43.1 47.2 44.2 51.5 48.2	55·4 52·9 62·1 52·6 63·3 56·0	54.5 55.8 60.9 56.5 64.7 60.1	20·7 21·4 21·1 20·6° 20·4 20·0°	393 571 607 635 650 608	684 827 836 870 811 715	} 580 } 437
JULY AUG SEPT OCT NOV DEC	48·7 52·1	40·5 42·1 46·8 44·5 48·4 45·3	26·6 22·3 26·4 28·4 28·2 30·0	28·1 33·7 27·9 24·2	24·7 26·5 27·6 26·7	25·3 25·1 26·7 26·9 27·5 27·1	93·4 90·1 101·4 105·0 107·4 105·4	97·0 95·8 107·6 99·6 100·5 97·9	83·7 81·3 93·4 95·5 96·9 95·1	4·3 4·4 4·7 5·0 5·4 4·7	4·0 4·0 4·0 4·2 4·7	5.8 6.0 5.9 6.2 6.6 5.8	5.7 6.1 5.8 5.7 6.5 5.8	44·8 47·7 48·8 48·7 57·2 45·8	43·0 45·8 48·2 46·2 57·6 47·4	56·1 59·4 60·6 61·2 70·6 58·8	53·9 57·2 59·3 57·2 69·7 60·4	18·9 19·4° 19·5 19·8 19·6 20·6°	583 538 552 539 538 505	643 590 712 655 641 591	} 370 } 377
1928 JAN FEB MAR APR MAY JUNE	43·4 41·7 47·0 41·0 42·7 45·8	44.2 47.4 47.9 43.1 44.3 46.6	31·1 31·1 34·0 28·5 29·9 26·5		25·3 29·2 26·8	26·4 25·4	100·4 98·8 110·5 96·8 99·4 99·4	95.7 102.0 108.2 99.1 102.6 105.0	90·1 87·2 99·2 85·8 87·6 87·9	4·3 4·5 4·2 3·8 4·0 3·8	5·1 5·6 4·9 4·7 4·6 4·2	5·8 6·0 6·3 5·3 6·2 6·1	5·8 6·0 6·3 5·7 5·9 6·4	45·0 46·4	46.3 45.5 51.4 47.9 47.6 51.6	59·7 57·2 65·0 55·3 58·6 59·5	58.5 58.3 63.7 59.5 60.1 63.7	20·7 20·1 20·2 19·3° 19·2° 18·2	506 532 535 526 534 526	574 731 712 675 690 664	} 342 } 279
JULY AUG SEPT OCT NOV DEC	44.6 40.3 48.2	44·1 39·2 44·0 44·9	24·0 24·3 20·6 24·2 29·9 30·9	26.2 23.8 25.6	25·6 29·1 27·3	27.8	95·5 97·7 87·7 102·7 106·8 101·5	98·5 103·8 92·4 97·4 99·9 94·0	87·0 88·9 80·8 93·8 96·0 92·4	4·4 4·8 4·8 5·3 5·6 4·6	4·1 4·4 4·1 4·2 4·3 4·6	5·4 5·6 4·9 6·2 6·1 6·3	5·3 5·6 4·8 5·7 6·0 6·3	49·2 50·1 45·2 50·8 49·9 46.8	44.7 48.1 50.3	60:9 62:2 56:6 64:3 63:8 60:4	58.6 59.9 55.3 60.0 62.8 62.1	16·9 17·8° 18·8 19·0 19·2 20·5°	486 469 470 491 508 492	611 594 702 665 699 699	} 245 } 432
1929 JAN FEB MAR APR MAY JUNE	42·1 42·6 44·2	50·5 47·0 42·9 44·9 45·9 40·3	39·1 27·0 28·5 30·9 29·2 24·5	28·1 31·5 31·1	26·8 23·1 27.2 30·2 29·2 26·4	23.9 24.7 29.7 28.9	116·5 90·9 98·6 104·1 103·4 91·5	110·5 97·3 96·5 106·5 106·8 96·7	106·7 80·5 88·6 93·8 93·0 81·9	4·2 4·0 3·8 5·0 4·6 3·9	5·0 5·1 4·4 6·0 5·2 4·4	6·6 5·6 6·6 6·8 7·8 6·1	6.7 5.8 6.6 7.3 7.4 6.4	53·8 44·3 47·0 47·1 53·4 38·4	45.9 45.2 50.2 54.7	60·2 67·4	65.7 58.6 57.4 64.8 68.9 53.5	21.0 21.5 22.2° 20.8 20.3° 19.9	571	673 775 841 773 773 812	} 428
JULY AUG SEPT OCT NOV DEC	45·7 45·1 51·2 48·5	45·1 43·9 46·8 45·0	24·7 24·2 27·3 30·0	26.5 31.1 30.9 26.8 25.7 25.5	28·4 30·2 28·2	27.5 30.0 28.6 29.5 29.0 28.6	93.6 101.0 98.4 110.3 108.2 106.6	96·6 107·3 104·1 104·7 101·2 99·0	85.6 92.0 91.6 101.1 100.0 98.6	4·7 4·5 4·8 5·4 5·7 4·9		6.9 6.0 6.5 7.1 6.9 6.2	6.7 6.4 6.5 6.8 6.2	50.8 42.2 50.3 48.6	51:1 48:8 41:7 47:7 49:0 46:2	63.0 55.1 64.6 63.1	63.9 60.7 53.9 60.3 62.1 60.0	18·9 20·3° 20·4 20·6 21·3 20·9*	620 622 589	708 705 811 783 763 661	360 499
1930 JAN FEB MAR APR MAY JUNE	37·3 40·0 36·7 39·6	43.8 40.8 38.7 41.1	24·0 24·1 20·7 23·1	24.6 22.9 23.8 21.0 24.6 23.6	25·8 28·1 25·6 27·7	28.2 26.6 25.6 25.3 27.4 25.1	101·9 88·2 93·4 83·9 91·0 83·4	97·4 94·4 91·4 85·9 9 3 ·7 87·8	93·7 79·6 85·8 76·1 82·0 75·6	4·6 3·7 4·0 3·6 3·8 3·2	5·5 4·7 4·7 4·4 4·3 3·6	6·9 5·8 6·0 5·4 5·8 4·7	7·0 6·1 6·0 5·8 5·6 4·9	41.2 42.5 36.7 39.8	40.9	51.9 53.9 46.9 51.0	54·6 53·0 50·5	22·1 21·5	555	773 696 621	427 230

* NORMAL SEASONAL CHANGE REMOVED.

Declared values of imports (c.i.f.) into U.K., and exports (f.o.b.) of U.K. produce and manufacture. Net Imports = Total imports less exports of imported goods.—MONTHLY ACCOUNTS OF TRADE & NAVIGATION.

OUTPUT—COAL Total for 4 weeks ending approximately at end of month.—BOARD OF TRADE JOURNAL.

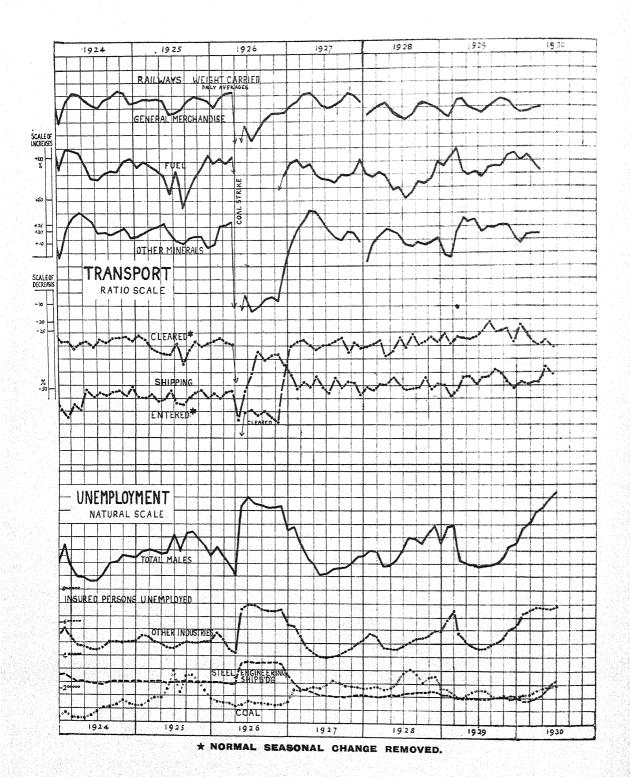
PIG IRON, STEEL OUTPUT for standard four-week month, based upon monthly figures issued by the NATIONAL FEDERATION OF INGOTS & CASTINGSIRON AND STEEL MANUFACTURERS.

SHIPBUILDING.

Declared values of imports (c.i.f.) into U.K., and exports (f.o.b.) of U.K. produce and manufacture. Net Imports = Total for 4 weeks ending approximately at end of month.—BOARD OF TRADE JOURNAL FEDERATION OF SHIPBUILDING.

Total for Qr.

⁵ 4 Weeks, excluding holiday week. * Excludes Christmas week, but includes New Year.



TRANSPORT.

UNEMPLOYMENT.

	SHIPPING.					RAIL	WAYS				INSUR		ERSO	NS UN	EMPL	OYED.	ļ	40,400,000
	Tonna	ge of Ships	Inde	ex of			t Traffi	c. ilways,				Ma	les.				Fem	ales.
	(with Entering	Cargoes).	Time Charter Rates.	Freight Rates.		Weigh:		Re- ceipts.	Total.	Coal.	Iron & Steel.	Engineering.	Shipbuilding	Building and Construction.	Cotton and Wool.	§ Other Industries.	Total.	Cotton and Wool.
	0000 tons	0000 tons	%	%	, -	F4 000 ton		£Mn	000	000	000	四 000	000	900 F G	000	000	000	000
1924 Average	461 ×	544 🖈	100	100	544	1743	551	8.89	941	72	52	116	78	99	35	344	263	62
1925 1st Qr. Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	417 464 465 463 489 450 479 4 7 2	516 500 523 502	105 92 89 94	95 82 78 87	544 514 528 551	1733 1517 1491 1713	539 538 517 512	8·88 8·31 8·53 8·89	1034 1058 1107 1063	125 219 250 191	59 62 64 58	100 95 96 95	83 81 85 90	108 77 83 110	27 31 39 26	371 351 355 345	286 273 290 241	45 60 73 42
1926 1st Qr. Av. 2nd ,, ,, 3rd ,, ,,	422 <i>469</i> 453 <i>451</i> 644 <i>594</i>	364 3 63	91 103	79 78 98	546 429 445	1778 667 336	544 376 331	9·10 5·81 5·64	1003 1186 1314	119 109 108	50 108 132	97 121 135	88 90 96	117 94 109	31 59 69	348 454 511	243 335 376	49 106 130
OCT NOV DEC	657 618 624 624 574 577	301 <i>306</i>	128 170 118	146 157 112	497 502 490	658 921 1589	347 343 405	7·19 8·02 8·54	1305 1310 1162	105 105 124	125 115 83	138 143 121	103 102 94	128 144 145	56 53 39	488 486 407	330 320 270	99 93 66
1927 JAN FEB MARCH APRIL MAY JUNE	500 541 409 491 481 514 477 496 533 534 522 496	462 535 538 547 519 524 552 509	111 110 116 116 116 108	103 105 103 96 99	522 504 602 525 561 511	1758 1689 1816 1598 1666 1552	491 511 625 578 640 576	9:04 9:03 10:20† 8:70 9:54 8:77	1180 1075 991 951 889 898	200 198 205 218 210 232	48 40 36 41 38 39	109 96 86 81 73 70	83 71 65 58 52 51	160 136 106 90 78 79	37 28 23 25 25 23 24	386 355 327 307 293 287	272 240 197 182 170 172	60 44 34 39 38 40
JULY AUG SEPT OCT NOV DEC	531 475 576 528 520 496 544 513 500 508 465 467	565 544 572 556 529 501 529 537	101 103 103 103 103 101	84 86 91 92 * 94 92	515 538 556 570 568 511	1564 1565 1656 1620 1674 1721	548 534 520 542 548 483	8·85 9·00 9·36 9·38 9·31 8·65	925 927 935 963 1003 1005	257 243 228 223 221 206	41 42 41 46 50 52	66 66 70 70 70 67	48 49 47 45 47 46	85 88 104 125 144 171	28 29 29 31 34 29	290 297 297 298 307 305	189 203 191 193 207 189	49 52 44 49 54 45
1928 JAN FEB MARCH APRIL MAY JUNE	458 498 416 488 474 508 484 504 528 5 29 529 508	475 532 538 546 486 491 550 507	96 92 90 90 90	86 83 84 84 81 83	500 510 552 480 519 488	1639 1609 1734 1445 1506 1483	452 506 559 501 564 543	8·60 8·78 9·48 8·07 8·65 8·31	1043 1026 944 945 979 1053	210 215 199 208 245 298	45 43 45 47 44 45	67 67 66 68 66 66	43 44 46 48 50 55	177 157 122 114 103 109	29 26 26 27 28 35	331 331 307 304 314 318	218 202 183 183 189 221	47 41 42 46 49 66
JULY AUG SEPT OCT NOV DEC	544 487 534 489 516 492 563 530 481 489 506 508	547 <i>532</i> 570 <i>540</i> 549 <i>558</i>	90 91 98 103 116 119	83 87 87 92 98	488 505 510 574 540 475	1412 1481 1486 1636 1629 1625	514 508 494 537 528 483	8·19 8·41 8·50 9·34 8·98 8·19	1122 1114 1089 1148 1189 1088	324 295 250 279 281 212	51 51 48 47 47 47	67 72 72 70 74 70	57 57 62 67 66 61	114 116 127 141 159 163	40 44 43 39 37 34	341 348 349 354 367 353	255 261 266 255 264 246	81 83 79 71 66 60
1929 JAN FEB MAR APRIL MAY JUNE	467 508 391 469 457 488 516 537 538 538 536 508	462 <i>535</i> 552 <i>559</i> 551 <i>558</i> 601 <i>554</i>	113 109 108 108 108 104	96 95 89 88 86 81	522 448 515 532 525 484	1832 1711 1849 1613 1646 1566	.492 424 519 584 596 562	9·13 8·26 9·27 8·95 8·94 8·39	1189 1197 980 960 956 942	212 170 147 175 198 203	43 42 36 37 37 39	76 72 64 64 65 61	56 52 50 46 46 46	206 252 141 116 104 100	37 38 34 39 37 38	388 393 350 332 325 315	277 257 224 222 221 221	63 60 56 63 69 72
JULY AUG SEPT OCT, NOV DEC	588 <i>53</i> 9	648 <i>625</i> 597 <i>581</i> 622 <i>589</i> 586 <i>595</i>	109 116 119 104 96 88	83 83 84 77 77 77	524 513 523 579 536 477	1682 1688 1660 1811 1845 1756	578 560 548 606 573 495	9·05 8·82 8·88 9·69 9·33 8·24	947 951 961 1005 1061 1075	202 173 162 165 153 156	41 40 39 41 47 45	61 66 68 68 70 70	47 49 51 51 49 48	103 108 121 143 172 181	40 41 36 36 40 42	314 331 335 339 356 359	231 247 243 249 265 269	78 78 69 69 69 73
JAN FEB MAR APRIL MAY JUNE	427 518 484 517 498 518 579 579	495 <i>574</i> 534 <i>542</i> 526 <i>532</i> 598 <i>551</i>	83 84 84 86 86 66	66 64 61 66 58 62		1892 1743 1755 1563	537 503 540 506	9·13 8·41 8·92 8·19	1173 1209 1267 1301 1357 1396	138 142 155 177 235 254	48 47 55 64 63 63	79 85 91 98 100 107	49 50 55 55 58 62	197 195 177 160 147 147	56 63 67 71 85 91	411 425 456 465 461 469	348 374 427 460 499 515	104 121 135 151 185 202

[†] Increase on pre-war rates raised from approx. 50% to 60% on Feb. 1st, 1927.

* NORMAL SEASONAL CHANGE REMOVED. § Excludes Commerce, etc.

TRANSPORT:
SHIPPING—ENTERED
AND CLEARED SHIPPING FREIGHTS-RAILWAY TRAFFIC— WEIGHT

RECEIPTS

UNEMPLOYMENT-INSURED PERSONS- Tonnage of British and Foreign vessels entering and leaving British ports with cargoes during month.—BOARD OF TRADE MONTHLY ACCOUNTS OF TRADE & NAVIGATION. Chamber of Shipping index numbers as published by "The Statist."—PREPARED BY DR. ISSERLIS.

Tonnage of goods carried on the Railways of Great Britain during the month, excluding free-hauled.

Monthly Receipts for goods traffic, excluding cost of collection and delivery till January, 1928, then excluding receipts for collection and delivery.—MINISTRY OF TRANSPORT.

Number of books lodged at Labour Exchanges on or about 25th of month.

MINISTRY OF LABOUR GAZETTE

[#] Excluding any disqualified for benefit by trade dispute.

FOREIGN EXCHANGES.

	AVERAGE OF DAILY RATES.												
	Paris f. to £	Milan l. to £	Berlin M. to £	Amster- dam fl. to £	Prague kr. to £	Berne i	Stock- holm kr. to £	NewYork \$ to £	Buenos Aires d. to \$	Rio de Janeiro d. per mil.	Bombay d.perrup.	Hong- kong d. per \$	Kobe d.perye
Parity	124-21†	92·46§	20.43	12.107	24-02	25-2215	18-159	4.866	47.58	27	18		24.58
1926 JAN. FEB. MAR. APRIL MAY JUNE	132·4 135·8 143·4 154·3	120·3 120·8 120·0 120·9 126·2 132·4	20·40 20·43 20·41 20·42 20·42 20·44	For 191 12:09 12:14 12:13 12:12 12:09 12:11	9 to 1925 163.9 164.2 164.0 164.1 164.1 164.2	RATES S 25.05 25.25 25.25 25.19 25.12 25.13	18·13 18·16 18·12 18·15 18·16 18·16	4·858 4·864 4·861 4·862 4·862 4·862 4·866	46:54 46:03 44:64 44:84 45:10 45:27	7:36 7:32 7:16 6:94 7:31 7:78	18:20 18:19 18:08 17:88 17:93 17:91	28.75 28.63 27.85 26.94 27.35 27.42	21·80 22·42 22·41 23·04 23·20 23·14
JULY AUG SEPT OCT NOV	169·9 165·2 141·8	145.0 147.5 132.5 118.3 115.1 109.4	20·43 20·40 20·38 20·379 20·415 20·387	12·10 12·11 12·112 12·124 12·125 12·130	164·2 164·0 163·8 163·7 163·7 163·8	25·12 25·14 25·120 25·120 25·141 25·106	18·15 18·15 18·15 18·147 18·170 18·155	4·864 4·858 4·855 4·850 4·849 4·851	45·48 45·42 45·62 45·90 45·74 46·16	7·68 7·59 7·51 6·92 6·40 5·87	17.93 17.96 17.98 17.89 17.84 17.85	27:06 26:45 26:05 23:83 23:56 23:46	23:30 23:63 23:93 24:04 24:30 24:23
1927 JAN FEB MAR APRIL MAY JUNE	. 123·63 . 124·01 . 123·98 . 123·97	111.6 112.3 107.7 97.05 89.96 86.94	20·454 20·468 20·468 20·490 20·501 20·494	12·135 12·123 12·130 12·140 12·136 12·124	163·8 163·7 163·9 164·0 163·9 163·9	25·176 25·220 25·235 25·251 25·253 25·244	18·171 18·174 18·144 18·135 18·157 18·128	4·853 4·850 4·854 4·857 4·857 4·856	46:40 46:93 47:51 47:55 47:56 47:69	5·80 5·87 5·83 5·80 5·84	18·03 17·97 17·96 17·88 17·93 17·91	24·17 24·79 24·01 24·50 24·32 24·21	24·15 24·20 24·31 23·90 23·26 23·09
JULY AUG SEPT OCT NOV DEC	124·01 124·03 124·03 124·00	89·04 89·32 89·35 89·12 89·47 90·69	20·450 20·431 20·433 20·408 20·422 20·435	12·119 12·129 12·135 12·116 12·075 12·073	163.9 164.0 164.0 164.3 164.4 164.7	25·220 25·212 25·222 25·249 25·272 25·277	18·128 18·116 18·094 18·084 18·098 18·080	4·8552 4·8606 4·8634 4·8700 4·8740 4·8825	47.76 +.85 4.95 4.90 47.83 47.82	5·83 5·87 5·87 5·91 5·89 5·91	17·87 17·87 17·97 17·97 17·99 18·10	24·15 23·68 23·83 23·95 24·43 24·63	23·31 23·37 23·14 22·96 22·65 22·71
1928 JAN FEB MAR APRIL MAY JUNE	124·02 124·02 124·01 124·01	92·17 92·07 92·37 92·55 92·65 92·76	20·461 20·431 20·412 20·412 20·399 20·417	12:086 12:109 12:124 12:110 12:098 12:098	164·5 164·5 164·64 164·71 164·72 164·67	25·302 25·336 25·339 25·332 25·327 25·317	18·138 18·161 18·183 18·193 18·186	4.8758 4.8750 4.8801 4.8821 4.8817 4.8805	47.83 47.88 47.86 47.81 47.80 47.66	5·92 5·92 5·93 5·92 5·92 5·89	18·10 18·00 18·00 18·01 17·95	24·69 24·44 24·40 24·42 25·05 24·66	23.09 23.08 23.20 23.47 22.94 22.95
JULY AUG SEPT OCT NOV DEC	124·23 124·18 124·14 124·11	92·81 92·74 92·74 92·61 92·57 92·66	20·384 20·364 20·356 20·363 20·354 20·360	12.084 12.101 12.097 12.096 12.082 12.078	164·13 163·76 163·65 163·63 163·64 163·72	25·255 25·211 25·200 25·200 25·190 25·178	18·161 18·134 18·130 18·138 18·143 18·132	4:8642 4:8538 4:8508 4:8498 4:8495 4:8525	47:43 47:41 47:34 47:34 47:47 47:36	5·90 5·91 5·91 5·92 5·91 5·89	17:91 17:95 18:06 18:06 18:07 18:062	24·54 24·50 24·36 24·55 24·59 24·51	22:65 22:29 22:69 22:88 22:96 22:75
JAN FEB MAR APRIL MAY JUNE	124·23 124·24 124·21 124·14	92.67 92.70 92.68 92.70 92.65 92.65	20·402 20·447 20·455 20·475 20·415 20·335	12·091 12·115 12·117 12·090 12·067 12·074	163.83 163.84 163.85 163.93 163.85 163.73	25·207 25·231 25·229 25·214 25·190 25·198	18·138 18·155 18·170 18·173 18·154 18·113	4.8503 4.8525 4.8529 4.8534 4.8510 4.8485	47:42 47:39 47:28 47:28 47:24 47:17	5·91 5·90 5·86 5·87 5·87 5·87	18.056 18.013 18.008 17.965 17.912 17.854	24·49 24·08 24·08 23·92 23·68 23·66	22:56 22:38 22:05 22:08 22:11 21:77
JULY AUG SEPT OCT NOV DEC	123·90 123·87 123·89 123·85	92·74 92·74 92·69 93·00 93·16 93·24	20·359 20·360 20·361 20·397 20·389 20·386	12:086 12:103 12:093 12:098 12:087 12:096	163·90 163·83 163·76 164·41 164·57 164·47	25·221 25·203 25·164 25·176 25·151 25·109	18·100 18·101 18·101 18·141 18·149 18·102	4-8511 4-8488 4-8479 4-8695 4-8777 4-8817	47:23 47:21 47:20 46:82 46:26 45:86	5.87 5.88 5.87 5.86 5.80 5.56	17·818 17·830 17·869 17·871 17·886 17·936	23·89 23·87 23·73 21·73 21·18 20·52	22:54 23:13 23:42 23:58 24:01 24:10
JAN FEB MAR. APRIL MAY	124-16 124-26 124-10 123-90	93·05 92·87 92·84 92·78 92·71	20·387 20·366 20·382 20·375 20·365	12·102 12·123 12·125 12·097 12·081	164·58 164·26 164·11 164·16 163·97	25:163 25:198 25:136 25:094 25:108	18·136 18·124 18·106 18·092 18·111	4·8695 4·8621 4·8632 4·8634 4·8599	45·12 42·70 42·24 43·61 43·02	5·52 5·55 5·72 5·81 5·86	17-931 17-907 17-862 17-860 17-835	19:47 18:66 18:24 18:40 17:67	24·23 24·28 24·38 24·38 24·39
Week endin June 7 ,, 14 ,, 21 July 5 ,, 12 ,, 19	123·91 123·81 123·78 123·76 123·68 123·66	92·74 92·76 92·76 92·76 92·82 92·89 92·87	20·361 20·363 20·367 20·391 20·395 20·395 20·377	12:082 12:083 12:086 12:092 12:092 12:096 12:089	163·82 163·81 163·80 163·77 163·94 163·99 164·03	25·102 25·074 25·088 25·076 25·070 25·043 25·027	18:104 18:097 18:090 18:090 18:098 18:102 18:094	4·8584 4·8601 4·8624 4·8649	42.61 42.15 41.54 40.66 40.08 40.43 40.83	5·80 5·65 5·54 5·53 5·45 5·38 5·40	17·796 17·809 17·815 17·836 17·846 17·831 17·823	15·59 15·57 15·30 15·33 15·34 15·30 15·38	24·39 24·41 24·44 24·42 24·41 24·39 24·39

^{† 25&#}x27;2215 before June 24th, 1928.

^{§ 25&#}x27;2215 before December 22nd, 1927.

[|] Zurich from November 12th, 1929.

ROYAL ECONOMIC SOCIETY

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BY

J. W. F. ROWE

No. 1. SUGAR

October, 1930

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STUDIES IN THE ARTIFICIAL CONTROL OF RAW MATERIAL SUPPLIES

BY

J. W. F. ROWE

No. 1. SUGAR

Part I. SUGAR INDUSTRY OF CUBA

Part II. MARKETING OF JAVA SUGAR

September, 1930

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PART I.

THE SUGAR INDUSTRY OF CUBA

I.—A GENERAL CONSPECTUS AND SOME CONCLUSIONS.

THE sugar industry of Cuba in its modern form may be said to date from the beginning of this century, for the Civil War (Revolt against Spain) of 1896-98 virtually extinguished the industry of the nineteenth century. This industry had reached an output of just over 1 million tons in 1895, but in 1899 only one-third as much was produced, while in 1900 a great drought coming on the top of the ravages of the war, reduced the output to 284,000 tons. The industry of the nineteenth century was essentially an industry of the Cubans, financed by Cuban capital and managed by them, both as regards the production of the cane and its manufacture and sale, though these were mainly in three separate hands. The cane farming was on a relatively small scale, and the mills were small and therefore numerous, while transport largely depended on the ox-cart. The new industry which was rebuilt after the Civil War was to be vastly different. The Civil War, while it drove Spain out of the picture, brought in the United States, and though from the political point of view the American occupation ended in 1902, from the economic point of view it was but just beginning, for the reciprocity treaty concluded with the U.S. in that year, whereby Cuban sugar obtained a 20 per cent. preference in the U.S. tariff (in return for general preferences on United States imports of manufactures into Cuba), is really the foundation stone of the modern Cuban-American sugar industry. By 1903 the million ton output of 1895 was again reached: already American capital had begun to trickle in, but the conclusion of the reciprocity treaty quickly turned this into a torrent which has steadily grown until the depression of the last few years. American capital not only built new sugar mills and bought up and re-equipped existing mills, but

was poured into the provision of railway and port developments, largely, of course, for the use of the sugar industry, while a not inconsiderable amount has been devoted to the more general development of the country. Up to about 1909 —that is, for the first six years of the treatythe United States annual requirements exceeded the whole Cuban crop, and Cuba therefore normally obtained most of the preference. In 1909 the Cuban crop exceeded 13 million tons, and the effects of the flood of American investment were only just beginning to show themselves. In the next year the crop amounted to 1,800,000 tons. In 1911 the weather reduced it to 1,480,000, but in 1912 it reached nearly 1,900,000 tons, and in 1913 it jumped to 2,429,000 tons, while another 100,000 tons more was added in 1914. For the five pre-war years the U.S.A. was still taking on the average over 90 per cent. of even this rapidly expanding production, despite the fact that Philippine sugar had been admitted free since 1909 up to a limit of 300,000 tons, which limit was removed in 1913, while the domestic production of sugar (U.S.A., Hawaii and Porto Rico) had risen from 971,000 tons in 1902-3 to 1,792,000 tons in 1913-14.

The Great War reduced the output of European beet sugar from 8½ million tons in 1912–13 to 5 million tons in 1916–17, and finally to 2.6 million tons in 1919–20. Cuba was for practical purposes the only source from which Europe could make good the deficiency. Prices began to rise sharply despite the rationing of supplies in Europe and later in the U.S.A. Production in Cuba was further enlarged as much as was humanly possible under the more difficult general conditions created by the World War; in 1916 the 3 million mark was passed, and in 1919 the crop nearly reached 4 million tons. But the lowest point of European

production was reached in the same year, and with the peace treaty signed, Europe insisted on having all the sugar which was in existence entirely irrespective of the price. The sugar famine in the U.S.A. and Europe had as its counterpart the "dance of the millions" in Cuba. In May 1920 the c. and f. price New York reached 22.5 cents per lb. A few months later the market registered 3.6 cents. At the same time as the consumer "went on strike" in the matter of sugar, the general post-war boom plunged down into depression.

The complete collapse of prices marks the beginning of a third phase in the history of the twentieth-century Cuban sugar industry. From 1902-14 the dominant note is expansion to meet the needs of the United States with its population growing both in numbers and wealth, and while it was a tremendous expansion, it was hardly more than was necessary. From 1914 to 1919 is a second phase characterised by an equally tremendous expansion, but this time primarily to meet the needs of a Europe temporarily shorn of its beet industry. The third phase, from 1920 to the present day, contains the story of Cuba's struggles to meet the varied results of the world sugar famine, and of the restoration of the European beet industry.

In bare outline the story of the last ten years has been as follows. From May 1920 prices rapidly and more or less steadily declined until a level of 2 cents c. and f. New York was reached at the end of 1921. Soon after the New Year, however, an equally steady, though much smaller, rise began owing to a rapid increase in consumption, and the average price in 1922 was just over 3 cents.* The year 1923 was extremely prosperous from the producer's point of view, the average price being no less than 5.28 cents. During 1924 prices fluctuated considerably, but averaged over 4 cents. The end of that year, however, marks the beginning of the world sugar depression, for the world crop of 1924–25 was 3.6 million tons larger than in the preceding season, of which increase the European beet industry supplied 2 million tons and Cuba I million tons. Although statistical consumption increased by 3 million tons, this excess, combined with the prospects of a further large increase in production, was sufficient to drive prices back again to the 2 cent level in October 1925. It is extremely difficult to generalise as to costs of production in Cuba, but it may be said that very few producers can show a profit at 2 cents c. and f. even to-day, while fewer still could do so in 1925. The marginal producers in Cuba probably require 2.75-3.0 cents to

make ends meet, though perhaps two-thirds of the production would be distinctly profitable at 2.5 cents. This is, of course, on the basis of unrestricted production. The price was forced down to this extreme of 2 cents owing to the endeavours of the Cuban producers to clear their unsold stocks, and when that had been achieved, there was a considerable reaction. But as the new Cuban crop became available during the early spring of 1926, the price again collapsed, and would probably have gone well below 2 cents if Cuba had not artificially restricted her crop by 10 per cent. Chiefly on this account, the New York c. and f. price averaged just over 2.5 cents during 1926, or exactly the same as in 1925, and at the end of the year had reached 3.31 cents. The Cuban crop of 1926-27 was restricted still more drastically to 4.5 million tons, and both on this account, and owing to bad weather in Europe and Java, the world's production was nearly I million tons less than in 1925–26. But consumption now came to an abrupt halt, and prices did not average quite 3 cents. Though almost in despair, Cuba decided to intensify the policy of restriction rather than abandon it, and in 1927-28 the Cuban crop was restricted to 4 million tons, while an attempt was made to ration the U.S. market in the hope of obtaining at least a part of Cuba's tariff preference, the balance of the crop being marketed to other countries by an Export Corporation, established for the purpose. But the attempt to raise the New York price more or less completely failed owing to a great increase that season of the U.S. duty-free supplies, and though the Export Corporation's sales to Europe were for a time relatively satisfactory, this failure of the U.S. market resulted in a steady decline in prices. By midsummer opinion in Cuba was swinging against restriction, and eventually matters were brought to a head by what amounted to an ultimatum on the part of the American sugar companies, who had never been wholly in favour of the policy of restriction and were now actively opposed. All control of marketing was abandoned in August, and prices rapidly dropped to the 2 cent level, and as the full unrestricted crop of 1928-29 came to market, prices steadily declined to an average of 1.75 cents c. and f. New York for the month of June 1929. The Cuban mills and the Cuban Government were thoroughly frightened, and the American interests seriously perturbed, by the effects of uncontrolled production and marketing, while in addition there was the still more alarming prospect of a further increase in the U.S. sugar tariff now due for revision. Eventually a scheme for compulsory co-operative marketing

^{*} Throughout this study, all statistics of price refer to the New York c. and f. price, unless otherwise described.

of the whole crop was established. This had an almost instantaneous effect on prices, and from August to December 1929 the average was over 2 cents. But owing mainly to personal factors, the Single Seller scheme was handled by men with insufficient experience of world marketing, while it eventually proved impossible to arrange the requisite finance. As the 1930 crop became available, the Single Seller held out vainly for a 2 cent level, but inability to make sales at this price, and the consequent financial difficulties of the mills, resulted in internal disruption and termination early in April. The effects of the world trade depression on consumption, and the unwillingness of merchants and speculators to carry greater stocks, have since then steadily forced down prices to a level of 1.25 cents c. and f. New York, despite the fact that a large proportion of the Cuban crop is still unsold.*

A glance at the table on p. 42 will confirm the proposition that in general the cause of all the trouble has been excessive production: little fault can be found with demand even though it may be true that consumption would be even greater than it is if the pre-war rate of expansion had continued unchecked. It is also clear that there was no appreciable excess production until the 1924-25 season. In that year the Cuban crop increased from the 4-millionton level of the preceding five years to a 5-million-ton level. This was due to the policy of expansion which Cuba had adopted in 1922-23, in the belief that the European beet crop would require many years to regain its pre-war level of 8 million tons, and that the higher U.S. tariff would not rapidly stimulate an appreciably greater duty-free production. In 1924–25, however, the European beet crop jumped from 5 to 7 million tons, while the rest of the world produced 600,000 tons more, of which Porto Rico, Hawaii and the Philippines supplied a very large proportion. The immediate cause of the depression was, however, the unexpectedly rapid recovery in the European beet crop, largely, of course, as a result of high protection and/or bounties. Cuba made a terrible mistake in expanding production in 1922, though it is difficult to say that she ought to have known better. For even a 5-million-ton capacity in Cuba and a European beet crop completely restored to the pre-war level † would have been required within two or three years, and the Cuban restriction policy was based on this assumption. Again, however, Cuba was wrong, because by 1928-29 there was a further increase

* At the time of writing, namely, mid-August 1930.

of 2½ million tons in the world's production. Of this, I million tons came from Java, more than 400,000 tons from Formosa and Japan, more than 250,000 tons from Hawaii and the Philippines, and the remainder in smaller amounts from almost every cane-producing country in the world. The argument that restriction by Cuba was responsible for this additional increase is very weak. It certainly had little to do with the increase in the Java crop, for that was almost wholly due to the introduction of a new high-yielding variety of cane. The same is true of Formosa and Japan, where the increase was undoubtedly due to a high protective tariff, while the U.S. tariff was responsible for the increase from Hawaii and the Philippines. Tariff protection also accounts for much of the increase from the rest of the world, and restriction in Cuba can hardly be made directly responsible for an increase elsewhere of more than 200-300,000 tons at the most. Since the sugar famine, the consumers of the world, or their Governments, have been determined to develop supplies under their own control, no matter what the cost. The lower the price of sugar, the more tariff protection or bounties have been increased. Cuba has, in fact, been very largely the innocent victim of the consumer, who has deliberately preferred to obtain his supplies in a more expensive way than was economically necessary. This is not to say, however, that the existing producers in Cuba might all have continued in existence if the world had required a 5-million-ton crop, or even more, from Cuba. As this study will show in detail, the Americanowned mills are in general much lower-cost producers than the older and smaller Cubanowned mills, which produce about one-third of the output of the island. The Cuban Government gave its support to the policy of restriction largely in order to prevent the extinction of these high-cost producers, and the consequent complete domination of American capital, as well as the profound disorganisation of the economic life of the country which would have resulted if the process of extinction had been wholesale and rapid. Nothing can, however, prevent this process in the long run, for the Cuban mills have not the necessary finance for modernisation even where that is physically possible. As well as the struggle between Cuba and the rest of the world, there has been going on an equally desperate struggle between the high-cost and low-cost producers within Cuba, or, in other words, between the Cuban-owned mills, with the Cuban Government as an ally, and American capital. Properly located, organised and equipped, the sugar industry of

 $[\]dagger$ I.e. a further addition of 1 million tons to the 1924-25 crop.

Cuba would be able to produce 5—10 million tons far more cheaply than any country in the world with the possible exception of Java. But the world does not want sugar on an economic basis.

Without a proper appreciation of the "makeup" of the Cuban sugar industry and the general attitude of the Cuban Government, it is impossible to weigh the merits and demerits of a policy of control as compared with laissezfaire; hence the justification for the somewhat detailed treatment of these matters in the following pages. The additional capacity created in one form or another from 1922 onwards was essentially low-cost capacity, and while this expansion would certainly have been very much smaller if the prospects of the recovery of the European beet crop had not been so completely misjudged, the existing high-cost producers would ultimately have been replaced by newlow-cost producers. But whereas this process might have been gradual, the sudden great addition of low-cost capacity to meet a demand which was, in fact, satisfied from other sources, now necessitated a wholesale retirement of highcost capacity. For even if by artificial control the whole existing capacity had been preserved until consumption had increased to the requisite extent, the high-cost capacity would have very quickly been rendered superfluous again by the introduction of new low-cost capacity, since if the existing marginal producers were making a reasonable profit, such new producers would be able to reap quite abnormal profits. Under laissez-faire, the high-cost producers would first be decapitalised in order to facilitate modernisation where that was possible, and where that was even then uneconomical, plantations and/or mills would have been abandoned, and any subsequent increase in demand would have been met by the establishment of new low-cost capacity. In other words, the old high-cost small mills and plantations in exhausted land in Western Cuba would have been abandoned, and new large-scale mills and plantations would have been established on the rich fertile lands of Eastern Cuba. But there were two great objections to laissez-faire: first, that the old high-cost producers were in the main the Cuban-owned concerns, and the low-cost producers were American concerns, while any new low-cost concerns would be the same owing to the lack of Cuban capital; and secondly, since the extinction of the low-cost producers would be on a wholesale scale, owing to the wholesale expansion of capacity, a severe contraction of Government revenues and widespread unemployment would have been inevitable. No Cuban Government was desirous to see the complete domination of American capital, but,

what was far more important, no Cuban Government dared to face the economic crisis which was the inevitable accompaniment of laissez-faire, without a struggle. The unemployment problem alone would have overthrown any Cuban Government even if it did not lead, as was extremely likely, to insurrection born of starvation. Undoubtedly laissez-faire would have been the best policy in the long run from a purely economic point of view, but it was in practice out of the question for the Government to stand aside, while as usual the high-cost producers were unwilling to pass away without

a struggle.

Given the practical necessity for some attempt at artificial control, there can be no question that restriction was the right form of control, for the excess of actual and potential supplies was far too large to be remedied by any scheme of stock-holding. In 1926 the prospects of a speedy return to equilibrium were not too unfavourable, and it was probably a sound policy to maintain control in the simple form of crop limitation rather than to make more intricate experiments. During 1927, however, the prospects were entirely altered by the sudden halt in the progress of consumption, and it became clear that control must either be abandoned or greatly intensified. Cuba chose the latter, and probably it was the correct choice, for otherwise the sacrifices of the two previous years would have been entirely in vain, while there was still a sporting chance that a wholesale collapse might be avoided, even though, as has been argued above, the high-cost Cuban-owned mills were ultimately doomed in any case. The Export Corporation scheme must also be judged better than no control of marketing, though ideally the whole crop, and not merely the surplus beyond the requirements of the U.S., should have been marketed by one authority. But such a Single Seller scheme was impracticable on financial grounds, and at that time the American mills would not have given their support even in the most nominal manner, for many of them had already exhausted their belief in artificial control and their patience with the Cuban Government. As it was, the control of 1927–28 broke down because the great increase in duty-free supplies to the U.S. market actually reduced the amount of sugar which the U.S. had to purchase from Cuba, with the result that prices went lower and lower, while costs in Cuba had been greatly increased by the drastic restriction to 4 million tons. At this point there was room for a stock-holding scheme: if even 250,000 tons could have been firmly held by producers in Cuba instead of being pressed on to the world's markets, it would have made all the

difference, for the price might have been maintained near the 3 cent level, and the Cuban mills and the Cuban Government might not have lost heart so completely as they did. At the same time, if any stock-holding could have been avoided without causing the loss of all faith in a policy of control, so much the better, for Cuba would have faced the future clear of what must by its nature be a serious encumbrance. But Cuba did lose faith, and the American interests were able to bring all attempts at control to an

The actual handling of the termination of control could hardly have been worse: on this point there can be no two opinions. Whether Cuba was right to abandon the policy of control is obviously a more doubtful issue. From the purely economic point of view, it must be reiterated that laissez-faire was the only ultimately sound policy. But once committed to control, it may well be argued that Cuba abandoned it just when such success as any control could bring was appearing on the horizon. During the season 1927–28 the world's visible carry-over had increased by only 79,000 tons, and before January 1, 1929 Cuba had disposed of the whole of the previous crop. Consumption after its halt in 1926-27 had resumed its rapid increase, and if Cuba had continued to restrict her crop to 4 million tons, the total world production in 1928-29 would have amounted to just 26 million tons, while consumption was eventually to reach nearly 900,000 tons more than this amount. Stocks would therefore have been reduced well below 2 million tons, and with a continued increase of consumption, the position might have gradually righted itself, for the expansion of tariff-protected and bounty-fed supplies had already approached its limits. Admittedly much of this reasoning is in the light of subsequent history, while the final outcome is, even so, highly conjectural. But at least it may be said that a policy of continued control had a reasonably sporting chance. As it was, Cuba produced a 1928-29 crop of 5,156,000 tons, and even with prices below the 2 cent level, stocks increased by 300,000 tons. Within a period of twelve months Cuba was forced to resume a policy of control, and she certainly did so in circumstances far less favourable than they would have been if control of some sort had been maintained continuously.

Before consideration is given to the marketing control of 1929-30, a word must be said as to the immediate results of the restriction years on the financial position of individual producers; in other words, were the prices realised for the restricted crops sufficient to compensate the increased costs of production of those restricted

crops? On the whole the balance probably lay in favour of producers. Put crudely, the 10 per cent. restriction of 1925-26 hurt no one very much, while it certainly had a stimulating effect on prices. The 1926-27 restriction to $4\frac{1}{2}$ million tons was more drastic even than it appears, for the acreage of cane was larger than in the previous year, but with an average price of nearly 3 cents most producers probably covered their costs. The still more drastic restriction of 1927–28 undoubtedly increased costs more than proportionately, while prices were depressed to a 21 cent average level, so that a substantial number of producers probably lost money. It must be remembered that the overhead costs of the low-cost producers are more than proportionately heavier than those of the high-cost concerns, and therefore it does not follow that if the marginal producers made ends meet, the low-cost producers made any considerable profit, though a few undoubtedly were able Taking the three years together, the balance, as has been said, probably lay with the producers, a conclusion which is supported by the improvement in the cash position of many American companies during the period, and by the fact that no important Cuban mill was

forced to suspend operations.

It remains to consider the Co-operative Export Agency of 1929. The great argument put forward in favour of marketing control as opposed to restriction of output by the American leaders of the industry was that competition in production would continue even if competition in marketing was ruled out: that centralised marketing would not therefore bolster up the less efficient producers as did crop restriction, and that those concerns who could not make ends meet would now quietly be forced out of existence. In theory this is undoubtedly true, but in fact the scheme was virtually forced on to the Americans by the Cuban Government and the Cuban-owned mills, and the latter hoped to use it in self-preservation, while the Cuban Government approved of it for that very reason. There can be no doubt that the scheme was intended not merely to put a stop to "weak" selling, but to force up prices to a reasonable level by putting any excess supply into storage. The argument was that if half-a-million tons or so could be held up for a twelvemonth, consumption would have outrun production; such a hope was not entirely unjustified. the prevention of weak selling as well as any such stock-holding demanded adequate financial backing. Cuba herself was powerless in this respect, and though great efforts were made to secure the co-operation of American banks, the latter were not in the mood for a gamble after the Wall Street crash, while those already actively interested in the Cuban sugar industry, like the National City Bank, had no desire to hold out a helping hand to their Cuban-owned competitors. Without adequate means to finance the mills, the efforts of the Export Agency in the spring of 1930 to hold the price at 2 cents were foredoomed to failure, especially when they had complicated the task by not getting rid of their old crop sugar. That the objective of the Agency was to exercise some control over the general level of prices, and not merely to prevent weak selling, is clear from the the history of its operations: it carried the prevention of weak selling to the point of no sales at all. Even the prevention of weak selling demands some means of financing those producers whose want of finance is the reason for the weak selling, but the Export Agency was powerless even in this limited field.

Whether a large-scale stock-holding scheme would have been sounder or not, however, centralised marketing would undoubtedly have been of inestimable benefit to Cuba during the last ten years. It has special limitations in the case of Cuba, because Cuba, unlike Java, is surrounded by many competitors whose output is large enough to enable them to step in and fill the gap, should Cuba withhold supplies for too long a period: it cannot give Cuba any real monopolistic control. But centralised marketing is the logical development in any

market where the sellers are many and the buyers are few, and it has obviously special advantages where the sellers have the advantage of a tariff preference for more than half their crop. That Cuba ever will develop such an organisation may be doubted for many reasons, not the least of which is that as the industry passes more and more into American hands, the units will become fewer and larger, and combination will render any co-operative scheme far less necessary than it has been in the past.

It would perhaps have been more logical, and certainly more usual, to place these personal conclusions by the author at the end rather than at the beginning. A study of the Cuban sugar industry during recent years must, however, be of a somewhat detailed and many-sided character, and the present procedure has been adopted mainly in the hope that a general conspectus of the subject may be of assistance. and that the author's conclusions may provide a hypothesis with which the reader may compare his own impressions as he proceeds. Since the primary object of this study is not to state a case but to provide the reader with material on which to form his own judgements, the above conclusions will not be further directly elaborated. In such problems as those now under discussion there can be no final judgement, and the reader's own conclusions are likely to be at least as important as those of anyone else.

II.—THE POSITION AND PROSPECTS IN 1921-22.

The c. and f. price New York averaged a fraction over 4 cents for the month of January, 1921: for the month of December 1921 the average only just succeeded in keeping above 2 cents. The total imports into the U.S.A. in 1921 were only some 400,000 tons less than in 1920, but imports from Cuba dropped by nearly I million tons. During the sugar famine, supplies had been obtained from a variety of unusual sources, and the U.S. importers were apparently in no hurry to patronise Cuba again on the former scale. For in January 1921 a law was passed in Cuba prohibiting all sales by individual mills, and providing that the whole of the 1921 crop, apart from such tonnage as had already been sold forward, should be handed over to a body known as the Cuban Finance Committee. This committee was composed of certain leading producers and the representatives of the American banks in Cuba. An advance was to be made against all sugar as it was produced and consigned to the Committee, which would make sales as opportunity offered: the surplus pro-

ceeds would eventually be divided amongst the mills in proportion to their production. The scheme was designed to prevent weak selling by mills whose normal methods of securing financial accommodation had been disturbed by the collapse of the Cuban banks, and in general to try and prevent any further fall in price, for at that time 4 cents seemed a ruinous price level after the 22 cents of 1920. It is not proposed to study the operations of the Finance Committee in detail, for its history has only a transient interest. Since the U.S. importers naturally disliked its monopolistic character, they purchased elsewhere rather than from Cuba, so far other supplies were available at roughly equivalent prices. As a result, the Finance Committee not only failed to stop the decline of prices, but failed to sell as much as Cuba might otherwise have sold at these prices. On the other hand, without the scheme weak selling might have carried the price down to 2 cents at the beginning rather than the end of the year; and on balance this might have been worse for Guba than the actual results.

In any case, the scheme was terminated at the end of the year, at the request of a large proportion of the industry, the general opinion being that, though conditions would have been bad in any case, this control of marketing had only served to make them infinitely worse. The Cuban crop of 1921 was only a little larger than that of 1920, but the reduced demand from the U.S.A., combined with the considerable increase in the European beet crop and the poverty engendered by the general trade depression, resulted in a carryover of nearly 850,000 tons on January I, 1922.* Any appreciable carry-over in Cuban ports was an unheard-of phenomenon, and there is little wonder that the price was so depressed. But with the beginning of 1922, demand began to revive with amazing vigour. The Cuban crop of 1922 was almost exactly the same as that of the previous year, and the European beet crop, which in 1920-21 had showed a recovery of more than I million tons was only 300,000 tons larger in 1921–22. Prices began to rise, reaching an average of 3 cents c. and f. New York for June 1922, and 3.5 for July, while after a break in September the advance was resumed, and for December the average was 3.9 cents. Apparently thriving on this advance in price, demand grew daily stronger: the U.S.A. consumed I million tons more than in 1921, and imported from Cuba 1.2 million tons more. The result was that by January I, 1923, the whole of the carry-over from the 1921 crop, and the whole of the 1922 crop, had been disposed of, and stocks in Cuba were negligible. The European beet crop of 1922-23 registered a further advance of \frac{1}{2} million tons, but at approximately 41 million tons it was still only one-half of the pre-war production. The only disturbing factor from the point of view of Cuba was the possible effects of the successive increases of the United States tariff. The full duty had been raised by the President in virtue of his emergency powers, from 1.256 cents which had been in effect since 1914, to 2.0 cents in May 1921. This raising of the tariff was intended to secure two main objects: to preserve the existing scale of U.S. domestic production through the price slump which was obviously in progress, and then later, to increase the scale of production so that the U.S. might become less dependent on foreign supplies, and thus make impossible any repetition of the recent sugar famine. The

general revision of the U.S. tariff was due in 1922. Proposals for a further increase were fought tooth and nail by the American sugar interests in Cuba, but despite all their endeavours, the full rate of duty was raised to 2.206 cents in September 1922. This very greatly increased protection would obviously tend to increase the U.S. domestic production, but opinions as to the probable or possible extent of the increase varied enormously. The high prices of 1919-20 had led to an increase in the U.S. beet sugar production from a level of 650-700,000 tons to over 950,000 tons. This increase was more or less maintained in 1921-22, but in 1922-23 the crop fell to 600,000 tons. It was clear, therefore, that high prices could stimulate production, but beyond that the matter was largely guess-work. High prices had greatly increased the Louisiana cane crop, but this crop, even at 300,000 tons, was really an insignificant factor. Porto Rico had not responded much to the high prices of 1920, though clearly the island could produce considerably more. But by far the greatest potential danger to Cuba lay in Hawaii, and still more in the Philippines. The higher tariff would almost certainly result in greatly increased production here, though it might take some considerable time to build up the requisite labour force in Hawaii, and to effect the necessary general industrial development in the Philippines. That Cuban sugar interests feared the results of the new tariff is evidenced by their unparalleled efforts to defeat it.

What policy would have been adopted by a Dictator of the Cuban industry surveying the position on New Year's Day 1923? Though such a personage was, of course, at that time non-existent, the question itself merits attention because it is precisely what every producer of Cuban sugar, whether American or Cuban by nationality, was asking himself at approximately that date, and while it is always a difficult operation to put oneself back in time and to assume an ignorance of what has actually happened since, the effort is perhaps worth while on this occasion. The major factors in the situation have already been sketched. At nearly 4 cents c. and f. New York, the price was already extremely remunerative, and it seemed certain that the cumulative rise, which had been in progress for nearly a year was by no means at an end: 1923 was fairly certain to be a really prosperous year, even if consumption, after its enormous increase in 1922, were to show little or no expansion, while the Cuban crop about to be harvested would almost certainly be reduced owing to prolonged drought. But was there any reason to suppose

^{*} Harvesting in Cuba usually begins in the latter half of December, though in recent years grinding has been prohibited before January 1, and in one year January 15. New cane is planted in the autumn of the previous year, but ratoonage is almost universal, i.e. the cane is cut down at harvest, and shoots again by itself.

that, even if temporarily checked, consumption would not resume its expansion very shortly? Demand seemed very inelastic, and with the revival of general prosperity now fully under way in the U.S., and apparently dawning in Europe, there seemed every prospect that at least the pre-war annual average increase of 3 per cent. would be required, and very likely more. Even the 1922 consumption was no greater than the immediate pre-war con-Assuming, therefore, a steady increase in consumption, could the Western world obtain such increased supplies without recourse to Cuba? There were obviously two possible sources: an increase in the domestic production of the U.S., under the stimulus of the new higher tariff, and the rapid restoration of the European beet industry to something like its pre-war proportions. The former would undoubtedly take place, but it would probably be some years before the actual tonnage increase would be appreciable in comparison with world production. The restoration of the European beet industry would also

presumably take place, but, judged by the slow advance to date, it seemed very improbable that the process would be completed within five or even more years. For at any rate four or five years, it seemed certain that any large increase of supplies would have to come from Cuba, and by installing up-to-date milling machinery and extending the whole scale of operations, it might be possible for Cuba to compete with even the most highly protected or bounty-fed producers, while, as the memory of the sugar famine grew more dim, the consumer might not be so willing to pay for such protected supplies. seems, in fact, more than probable that our Cuban Dictator would have arranged for a considerable expansion of the island's production, perhaps of the order of one-third to onehalf million tons annually for the next three years or so at least, while he would have pushed on with the modernisation of milling plant, and sought by all possible means to improve methods of cultivation and so reduce also the cost of cane to the mills.

III.—THE CAPITAL ORGANISATION OF THE INDUSTRY.

With the general conclusion that nothing much was to be feared either as the result of the new U.S. tariff or from the European beet industry, and that therefore a policy of expansion was the policy for Cuba, many of the leaders of the Cuban sugar industry agreed. But it is now necessary to attempt some description of the varied and manifold interests which compose that industry, for the divergent attitudes and policies of these different interests have been of very considerable consequence in the last ten years. As was said earlier, the nineteenth-century Cuban sugar industry was managed and owned almost entirely by the Cubans themselves, but the tremendous expansion of the period 1902-14, and equally the expansion during the war period, was largely the work of American capital. By 1922 American capital owned at least a controlling interest in some 85 mills out of the 188 mills which operated in the 1921-22 season. These 85 mills produced 53 per cent. of the output. In addition to these American mills there are a certain number of other foreign-owned mills, and purely Cuban interests produced only about one-third of the output, though they owned considerably more than that proportion of mills, for broadly speaking the larger mills are all foreign-owned, the really large ones all being American-owned. Thus the first broad line of division is one of nation-

ality, but consideration of this factor may be postponed pending further analysis of the American interests.

The pre-war American investment was almost wholly by private interests; it was not until the war period that the banks and trust companies took a hand, notably the National City Bank and the Royal Bank of Canada. The American Atlantic sea-board refineries became in many cases interested directly in Cuban mills, and banks had interests in these refineries, while in one or two cases the refineries virtually own their own banks. In addition, the banks, and especially the two already mentioned, had developed an ordinary banking business in Cuba on an extensive scale, and played a large part in the normal financing of the sugar mills, both American and Cuban. It is impossible to disentangle the precise relations of private interests, bank interests and refinery interests, but it may be observed that many attempts lead to most erroneous conclusions. Thus it is frequently said that the banks to-day control at least half the crop, and that even this proportion was far exceeded in 1922. The accuracy of this statement depends entirely on the meaning attached to the word "control." The two banks above mentioned had in 1920 made extensive loans on the security of sugar stocks, etc. for the ordinary purposes of crop financing and when the catastrophic pricefall occurred, the security for these loans was no longer adequate collateral. A number of companies could not provide more collateral, still less repay the loans, and the banks therefore had to take over these companies. The National City Bank brought together the companies left on its hands into the General Sugar Estates Corporation, the directors being nominees of the bank: this group with its eight centrals accounted for an output of about 300,000 tons. The Royal Bank of Canada had to take over companies owning 14 centrals, with a total output of rather under 300,000 tons. Even in 1922 the banks directly controlled not more than, say, 15 per cent. of the Cuban crop, and since the Bank of Canada has recently succeeded in selling some of its companies, the direct control to-day is probably not more than 10 per cent. Indirectly the banks are far more interested, first through loans made on sugar for ordinary crop financing purposes, and secondly by the fact that they acted as underwriters for numerous issues of bonds. But this gives no more and no less control than is ordinarily the case where an industry requires temporary financial assistance from the banks. The banks certainly have "control" of a sort in all such cases, but such "control" must not be confused with the direct "control" or virtual operation of concerns which are the

property of the banks.

The extent of control by the Atlantic seaboard refineries is also often greatly exaggerated if any reasonable meaning is attached to the word. Thus an article in the periodical Concerning Sugar, dated May 1922, asserts that of the 85 American-owned mills in Cuba, no less than 49 are either owned outright by American refinery companies, or are affiliated to them by interlocking officers and directorates, and that these 49 mills have an average capacity more than double that of the remaining American mills, and nearly three times that of the Cuban and European-owned mills. The validity of this analysis need not be called in question, but the reader is obviously invited to infer the existence of a vast sugar-producing and refining trust. The fact that one, or even two or three, of the directors of a refining company are also directors of one or more sugar mills, does not imply that the refinery controls the policy of those mills any more than that the mills control the refinery. Naturally sugar mills are not averse to the establishment of contacts with a refinery and vice versa, but it is a long step from a liaison of this kind to control in any real meaning of the term. It may be observed that Concerning Sugar is a publication of the United-States Beet Sugar

Association, and that this article appeared during the tariff negotiations of 1922. The real position appears to be as follows. In 1922 the American Sugar Refining Company had recently acquired Centrals Canagua and Jaronu, though the latter had only been built in 1921; it has since been expanded until it is now the largest sugar mill in the world. In 1922 the American Sugar Refining Company therefore controlled only about 70-80,000 tons of sugar; in 1928-29 this had risen to nearly 200,000 tons with the expansion of Jaronu, but even this is only about 12-15 per cent. of its raw sugar requirements. Secondly, the United Fruit Company, which owns the Revere Refinery at Charlestown, Mass., also owns two centrals. Boston and Preston, with a combined output of some 260,000 tons, which is approximately the output of the refinery. Thirdly, the Cuban American Sugar Company owns six mills in Cuba, including the contiguous properties of Chaparra and Delicias which are operated as a single unit and form the largest sugar estate in the world: these six centrals produce about 300,000 tons. The Company owns the Colonial Sugars Refinery at Gramercy, together with sugar lands in Louisiana, and also the Cardenas Refinery in Cuba, which refines mainly for local consumption. In this case the Company's raw sugar production somewhat exceeds the requirements of its refineries. Fourthly, the McCahan Refinery at Philadelphia is owned by a number of companies under the virtual control of the house of Rionda. The Rionda group now account for about I million tons* of raw sugar, whereas the McCahan refinery meltings amount only to a quarter of this amount. No other refineries appear to own a controlling share in Cuban mills, nor do other sugarproducing companies control refineries. The position is quite as much that sugar-producing companies control refineries as the reverse position, and my conclusion stated in general terms is that in 1929 producers and refiners were directly associated to the extent of about I million tons, or 20 per cent. of the Cuban crop. In 1922 the extent of refinery control was perhaps greater than this. The Warner Sugar Corporation had its huge refinery at Edgewater, N.J., and owned Central Miranda with an output of 70-80,000 tons. The Warner Corporation was one of the concerns taken over by the National City Bank in 1921, and in 1927 the Bank sold the refinery to the National Sugar Refining Company, thus separating the previous vertical combination. Before

^{*} Not including General Sugars Corporation, which it has virtually managed and whose output it has sold since March 1929.

1022 the Pennsylvania Sugar Company's Refinery at Philadelphia was leased by the Atkins group which virtually controlled the Punta Allegre Sugar Company with its six centrals and an output of 300,000 tons of raw sugar: the refinery has since then been handed back to the Pennsylvania Company, probably under pressure from the National City Bank, which has a large say in the general conduct of Punta Allegre. But against this must be set the development of Jaronu by the American Sugar Refining Company. The true position is most difficult to assess at any date, but if we regard 20 per cent. of the Cuban crop, as definitely associated with American refineries, we have a sufficiently sound working proposition for the purposes of the present study, while in addition there is some liaison in many other cases, either by ownership of shares or by common officers or directorates.

To obtain a reasonably complete picture of the organisation of American capital in the Cuban sugar industry it is necessary to make it clear that there are still other concerns with effective control over a number of mills: combination has, in fact, proceeded to a very considerable extent. Mention has already been made of the two groups associated with the National City Bank and the Royal Bank of Canada, and also of the Czarnikow-Rionda group. This last named, with its control of over I million tons, is by far the largest group, and its policy in any given situation naturally

carries great weight. Its backbone is composed of the Cuba Cane Sugar Corporation and the Cuban Trading Company: the former owns thirteen centrals, and the latter five centrals, including Manati, which is very large. The Punta Allegre Sugar Company is another combine controlling six centrals with a combined output of about 375,000 tons. Other large concerns are the Cuban American Sugar Company, with an output of 300,000 tons from its six centrals; the Cuban Dominican Sugar Corporation, with an output of 200,000 tons from its seven Cuban centrals, and the Guantanamo Sugar Company, with an output of 65,000 tons from three centrals: these concerns are nominally quite independent of each other, but the fact that the same two persons hold important offices in all three may betoken some co-ordination of outlook and policy. Finally, mention must be made of the Cuba Company with its two large centrals producing 120,000 tons, and it must not be forgotten that the American Sugar Refining Company and the United Fruit Company also each have two large centrals, as mentioned above. Thus the American capital in Cuban sugar is centralised and syndicated to a very considerable extent, and in this respect offers a striking contrast to the purely Cuban-owned concerns, which rarely own more than one central, and as has been said, even that is on the average much smaller than the average of the American centrals.

IV.—THE FATEFUL DECISION TO EXPAND PRODUCTION.

It is now possible to return to the discussion of the situation on New Year's Day 1923, and to consider the attitude and policies of these variously interested parties in comparison with the conclusions which, it was suggested, might have been reached by a Dictator for the industry as a whole. The interests of the two banks may be considered first. Put shortly, they had incurred "bad debts," and with bad debts the only alternative to writing them off is to try and convert such assets as exist into propositions which will in time pay off the debt. No one, least of all perhaps a bank, likes writing off a loss, and in view of the not unpromising outlook, there was a strong case for a policy of modernising and enlarging the mills left on their hands in the hope that, with satisfactory prices and reduced costs, they would eventually convert them into satisfactory investments, or be able to sell them off at remunerative prices. Even if the policy of increasing production to the point of lowest costs was copied by other mills, and over-production resulted, the banks still hoped that with the strength of their financial resources their mills could be brought to a level of costs lower than many would be able to reach, especially the small family-owned Cuban concerns, and that therefore they would survive until a new equilibrium was reached. Accordingly, the two banks decided on a vigorous policy of expansion to secure lowest costs—indeed they had already set things in motion during 1922.

The attitude of the refineries owning mills in Cuba is somewhat less easy to summarise. They have one big common bond with the rest of the industry, namely, opposition to a high U.S. tariff on sugar. For these Atlantic seaboard refineries deal only with imported sugar, and therefore any increase in the U.S. domestic production means less demand for their imported product. Provided that a refinery produces for itself on approximately

the same scale as its competitors, it is not specially averse to high prices within limits, since what they may all lose as refiners they will gain as producers. But the sugar famine had sent prices beyond any such limits, and had severely disorganised the refining business, while the American Sugar Refining Company, which then directly controlled no raw sugar supplies, may have felt itself at a disadvantage with the refineries which did own Cuban mills, such as the Revere Refinery of the United Fruit Co., the Colonial Sugars Refinery of the Cuban American Sugar Company, and the giant Edgewater refinery which was then associated with the Warner Corporation's central. Hence the American Sugar Refining Company had proceeded to the purchase of Centrals Cunagua and Jaronu, with the full intention of developing the latter to the utmost: they may also have taken note of the very high efficiency of the centrals belonging to the United Fruit Company. Taken as a whole, however, the refineries appear to have remembered that though sugar famines occur occasionally, it is on balance cheaper to buy sugar than to produce it. There has been no other large extension of vertical combination; on the contrary, there has been some separation of existing combinations, as noted above. But the lead of the American Sugar Refining Company in developing Jaronu was by no means disregarded by the industry.

The attitude of the remaining American mills is still less easy to assess. The idea that they, one and all, deliberately adopted a policy of modernisation and expansion, is probably nearly as misleading as the allegation, often made by Cubans, that their object in so doing was simply and solely the deliberate extinction of the Cuban mills. As to the fact of pretty general expansion by the American interests, subsequent events leave no doubt, but to say that it was the result of a deliberate policy is another matter. Account must be taken of the difference (a) in the costs of growing sugar in the fertile virgin lands of the eastern provinces of Camaguey and Oriente, and grinding it in a large-scale mill equipped with the latest and best machinery, and (b) of the costs of growing on the long-used, partially disease-ridden lands in the western provinces, and grinding in relatively small mills established and equipped. often twenty and more years ago. A representative sample group of mills in the east and in the west would probably show costs f.o.b. to be at least $\frac{1}{2}$ cent per lb., and more probably nearly I cent, lower in the east. Costs of production are peculiarly difficult to calculate reference will be made to this matter later

on*—but this generalisation gives some idea of the order of the magnitude of the difference. The expansion of the industry has largely taken the form of a steady progress eastwards, before the war into Camaguey, and during the war into Oriente, and the process does not imply a recourse to less suitable land under the pressure of a growing world demand, but rather the development of new lower-cost sources of supply. A price of sugar reasonably remunerative to producers in the western half of the island is bound to lead to the establishment of new production in the eastern half. At the beginning of 1922 prices had risen to the 4 cent level, which was certainly profitable to the western high-cost mills and extremely profitable to the low-cost mills in the east, while the prospects were by no means unfavourable even for the more distant future. Hence a further development by American interests of low-cost production in the east naturally took place, while the American mills in the western half of the island, fearing greater competition from the east, naturally sought to increase their efficiency and capacity in an endeavour to balance the lower cost of cane in the east by the greatest possible milling efficiency. The idea that a deliberate policy of expansion was adopted is an unnecessarily artificial explanation which rests on no concrete evidence whatever.

Since in my opinion there was no deliberate policy of expansion, the idea that American capital was plotting the downfall of the purely Cuban mills is equally fallacious. But it will be convenient at this point to survey briefly the attitude of the Cubans towards the American interests. At the back of the Cuban mind is the feeling that all was as well before the invasion of American capital as it has lately been ill. At first their attitude was one of goodhumoured contempt, the "We have been growing sugar before you left England, so don't think you can teach us" attitude. The early American companies did indeed merit a good deal of such contemptuous criticism. The erection and operation of the actual sugar mill was well within the scope of their experience, but many of them had to buy their experience on the agricultural side, and the Cuban cane farmers naturally saw to it that they paid a suitable price. With their predilection for large-scale methods, the Americans preferred to purchase their cane from as small a number of cane farmers as possible. They therefore let out their land in large areas to managercolonos, retaining little control beyond arranging the acreage to be planted or worked each

These colonos were able to take season. advantage of the absence of supervision, knowing that the American managers had not the necessary knowledge for supervision even if they desired to exercise it. They made the Americans pay far more than was really necessary, and waxed fat on the excess. Most of them lived in the cities and often even abroad, only visiting their plantations now and then: on material standards the life of these colonos before the war was a very pleasant gentlemanly affair. In some cases the Americans tried to farm part of their lands themselves, but they lacked experience; and the salaried official in a foreign country could be persuaded only with great difficulty to make the effort to gain that experience, and to take that interest in the land which good farming of any sort demands. For a long time their "administration cane," i.e. cane grown by the company, cost most American mills enormously more than buying cane from even the most rapacious The Cubans soon began to recognise that the Americans were greatly reducing milling costs, both by large-scale operations and superior plant, and also through a more efficient juice extraction, but they felt that the Americans were labouring under the delusion that mill efficiency was the important thing, while in their view this was a secondary consideration to the actual production of the cane. The true doctrine is that neither should be sacrificed or neglected to the interests of the other, but that each should receive the attention necessary to keep abreast with the march of agricultural and industrial technique. If the Americans are to blame for having devoted all their attention to the milling end, they have, at any rate, secured results which may be said to compare most favourably with anything which the Cubans may have effected at the agricultural end.

The good-humoured contempt of the early years gradually changed to one of apprehension. The Americans were learning something about agriculture; they were not indeed following the traditional lines of cane farming in Cuba, but they were certainly developing with some success a technique of their own, an adaptation of arable farming in the Middle West, for which the wide flat lands of Camaguey and Oriente provided a suitable scope. development there during the war period changed Cuban apprehensions to downright fear. They realised that the whole industry was rapidly passing out of their hands. They still felt—as indeed many do even at the present day—that the Americans did not yet know how to run the sugar industry of Cuba at a

profit: they could point to many cases where little or no return had yet been obtained from expenditures of millions of dollars (except during the "dance of the millions" when any fool could make money), and they can still do so to-day. But they began to realise that if there ever was over-production, it would be the Cuban mills which would sink first, not only on account of the stronger financial position of the American companies, but also because of their undoubtedly lower costs of production. The crisis of 1921, though relatively short, confirmed their worst fears. It was the Cuban mills which suffered most, just as it was the Cuban banks which had to put up the shutters. Finance, indeed, was the weak spot. organisation of banking and of investment in Cuba made it most difficult for the ordinary half-family purely Cuban concern to raise money to rebuild or re-equip its mill on modern lines, while in many cases it was useless to do this because physically impossible to obtain the greater supplies of cane needed for an economical large-scale milling plant. It was still more difficult to launch completely new enterprises in competition with the Americans in far-off Oriente. Hence Cuban capital had played a relatively small part in the expansion of the industry up to 1920, and after the banking crisis of that year it could obviously play only a still smaller part. The fears of the Cuban sugar producers being thus aroused, made them more receptive towards the preachings of the Cuban nationalists, especially on the subject of the dominance of foreign capital. By 1922 the attitude of the purely Cuban mills was one of fear, and the hatred which fear inspires. They realised that unless the world required a large steady increase of supplies, there would not be room for all, and that even if this condition were fulfilled, the Americans would increase their already too large hold on the industry. There was, however, one real bond between the Cuban and American interests, namely, their united opposition to a higher U.S. sugar tariff. Throughout the summer of 1922 the two interests had fought side by side, and the defeat of their combined efforts made them feel the common victims of a great disaster. Moreover, the rise in the price of sugar during 1922 lulled their fears at least temporarily, and it was clearly no time to arouse Cuban public opinion or try and enlist the aid of the Government. The Cuban is temperamental in the extreme: one minute he feels exalted to the heavens and wildly optimistic, and the next he is in the depths of depression and despair. Cast down by his failure to defeat the tariff, he soon took comfort in the steady rise in prices, and as the 4 cent level of January 1923 became the 6 cent level of April, he became convinced that all was well, and set about expanding production with nearly as much will as his American rivals, though with far less means.

It seemed advisable to undertake this somewhat lengthy analysis of the situation towards the end of 1922 because of the rather widespread idea that the expansion of the Cuban crop to the 5-million mark was, so to speak, the inevitable culmination of the expansion begun during the war years. Such an idea is erroneous and extremely misleading. Broadly speaking, the crops of the five years 1919-23 all ran a little below the 4 million mark: the crop of 1923 was only 3.6 million tons, owing to bad weather, and even the 1924 crop only just exceeded 4 millions. There are no satisfactory statistics of acreage under cane for this period, but it is fairly clear that new planting ceased abruptly on the termination of the war, since for five years there was no increase in the crop. Even with a 4-million ton crop, Cuba would probably have experienced difficulties as the result of the sudden restoration of the European beet crop, but these would have been trifling in comparison with the troubles entailed by a 5-million ton crop. The leaders of the sugar industry, whether from the narrow point of view of the profits of their particular concerns, or from the broad point of view of the good of the industry as a whole, committed a terrible error when they decided on a policy of further expansion. Their crucial mistake lay in supposing that the restoration of the European beet industry would take at least another five to seven years to accomplish. Even looking backwards, it is extremely difficult to say that they ought to have known better: as has been suggested, a Dictator would probably have ordered expansion at the rate of one-third, or even one-half, million tons a year. This is not a case of unreasonable optimism by the entrepreneur function, still less an instance of the blind folly which sometimes appears to overtake the capitalist system: it was just a wholly excusable error of judgment, though if it had been entirely inexcusable, the penalty could hardly have been worse.

V.—PRODUCTION, CONSUMPTION AND PRICES, 1923-26.

The actual course of events may now be compared with the expectations thereof. During 1923 everything went according to plan. The Cuban crop was, as has been said, 400,000 tons below normal owing to drought, and this sent prices in April and May well above 6 cents. As it became clear that consumption was not exceeding that of the previous year, prices soon began to decline, but were still about the 51/2 cent level in the last two months of the year. The European beet crop of 1923–24, then being harvested, showed an increase of \frac{1}{2} million tons, and the American beet crop showed a substantial recovery from the low figure of 1922-23. The Cuban crop of the spring of 1924 returned to the 4-million mark, and it became clear that cane production was expanding not only in the U.S. possessions and the Philippines under the influence of the increased tariff protection, but pretty generally throughout the world. For the season September 1, 1923-24, the total world production of sugar was nearly 2 million tons greater at approximately 20 million tons, but after its rest during the previous season, consumption once more leaped up by 2 million tons, and the visible supply on September 1, 1924, was reduced by 250,000 tons to the low level of 982,000 tons. Prices, however, were on the

decline, and had reached 3·3 cents average for July, though August was better, and September October and November all averaged over 4 cents. This check to the price-fall is somewhat extraordinary in view of the obviously large European beet crop then being harvested, and at least a strong presumption in favour of a much larger crop shortly to come from Cuba. The explanation presumably lies in the almost complete exhaustion of visible stocks in Europe, and their very low level in the U.S.A.: the world had, in fact, calculated things just a trifle too finely in allowing prices to decline quite so far during the summer months.

We now come to the season 1924–25 and its complete destruction of the expectations of 1922. As soon as the European beet crop began to come seriously into the market the price of sugar rapidly fell away. For the month of December 1924 the c. and f. New York price averaged 3.41 cents, and 3 cents was touched: for the month of January the average was only 2.8 cents. The Cuban crop then began to arrive, but for a time the rebuilding of depleted refinery and probably also other invisible stocks, absorbed such supplies as were put on the market. During February, March and April, Cuban sellers were making desperate efforts to arrest

the fall in prices and restore at least a 3 cent level. But by May 1, 1925, there were no less than 1,158,000 tons in Cuban port warehouses, and probably a considerable amount more held back at the mills. By June I port stocks had increased by a further 150,000 tons, and the average price for July went below 21 cents. On October I there were still nearly 600,000 tons in Cuban ports, and during that month prices finally collapsed. The average for October came out at a fraction over 2 cents, but quotations had been down to 1.94 cents. In the last two months of the year there was a recovery to a $2\frac{1}{4}$ cent level, since as well as the huge increase in production, there was also proceeding a record increase in world consumption. The world's statistical consumption in 1924-25 may be put at the round figure of 23 million tons, an increase of no less than 3 million tons on the previous season. World production in 1924-25 may be put at 23.7 million tons, an increase of 3.6 million tons on the previous season. Of this increase, the European beet crop contributed 2 million tons, Cuba just over I million tons, American beet crops 200,000 tons, while the remaining 400,000 tons came from the other cane-producing countries, in which those enjoying the protection of the U.S. tariff were again conspicuous. On September 1, 1925, the world's visible supply stood at 1,612,000 tons as conpared with 982,000 tons a year previously. Even if invisible stocks were above the normal level of convenience—a matter of considerable doubt—it nevertheless seems worth drawing attention to the fact that an excess production of 600,000 tons on a total of 23,000,000 tons, or a little over $2\frac{1}{2}$ per cent., was sufficient to drive down prices from an average of 4·18 cents for the calendar year 1924 to 2.57 cents for 1925, or nearly 40 per cent.

The Cuban industry, and indeed the sugar producers of the world, were stunned with surprise by the sudden enormous increase in supplies: they might just as well have been stunned by the enormous increase in demand, if supplies had merely fulfilled expectations. Their surprise at the increase of the European beet crop was only a little greater than their surprise at the increase in the Cuban crop. It may be thought that there was much less excuse as regards the Cuban crop, but it must be remembered that the Cuban Government had no acreage statistics, and even the large American combines were planting in complete ignorance of each other's programmes. It has been said above that the chronic optimism of a capitalist system can hardly be blamed for the adoption of a policy of expansion, but in the execution of that policy the chronic tendency for a large number of competing producers to overdo things is clearly manifest. For the crop might have been even bigger than the 5.1 million tons which was actually harvested. statistics whatever are available, but it is certain that a considerable acreage of cane, some say as much as the equivalent of another I million tons of sugar, was left uncut, simply because the centrals reckoned it was not worth the expense of cutting and grinding with prices, already in May, down to $2\frac{1}{2}$ cents c. and f. New York. But even making allowance for this, the real surprise to everyone was the increase of 2 million tons in the European beet crop. Such an increase in a single season was almost unbelievable: at the most a doubling of the annual 1 million tons increase of the three previous seasons might have been deemed possible. What would have happened if consumption had not also increased by an almost unbelievable amount, hardly bears thinking about from the producer's point of view. On the other hand, if consumption without the inducement of lower prices had increased by only 2 million tons, which is quite within the bounds of probability, and if production had done no more than fulfil expectations—that is to say, ½ million tons extra from Cuba and the same from Europe, making a total world crop of, say, 211 million tons as against a consumption of 22 million tons—the situation would have been almost equally serious from the consumer's point of view. If our imaginary Dictator had had charge of world production as well as that of Cuba, the consumer would have fared just about as badly as in actual fact producers fared without him.

Towards the end of 1925 every man, woman and child in Cuba, from the mill-owners and mill-managers to the poorest peasants and labourers, were depressed to the point of despair. At "sacrificial" prices the Cuban ports were being more or less cleared of stocks, a noticeable difference to the situation at the end of 1921, but in 1921 there were no large invisible stocks in the form of uncut cane standing in the fields, and there was no prospect of a large increase in the coming crop, as there was now. If there was no calamity in the weather, it seemed more than probable that the crop of 1926 would reach $5\frac{1}{2}$ million tons at a conservative estimate. The European beet crop then being harvested would apparently reach at least 7½ million tons, and some further increase must be anticipated from other cane-producing countries, though bad weather had considerably reduced the U.S. beet crop. The sugar crops of the Far East were up to

normal, and Java during the summer of 1925 (which crop is reckoned statistically amongst the world crops of 1925-26) had harvested in a favourable season 2.3 million tons as compared with 2.0 millions the previous year. outlook was for a world crop of roughly 25 million tons. This meant that consumption must increase another 2 million tons, following the phenomenal increase of 3 million tons in the previous season, and even that would effect no reduction in stocks. As the European beet harvest drew to a close, fulfilling expectations with a crop of 7.6 million tons, and as the Cuban campaign began to get fully under way, despair in Cuba began to turn to desperation. The planters began to feel that full production would knock the bottom out of the market altogether, and the Government, that unless something was done, popular desperation would shortly turn to violence. The stage was being rapidly set for restriction as the only possible remedy in a situation where a definite remedy of some sort was now deemed absolutely necessary.

At this point it will be as well to offer certain conclusions as to costs of production in Cuba. It is extremely difficult to generalise about costs in any form, owing to the fact that the mills purchase about 85 per cent. of their cane from cane farmers, who receive payment in the form of a percentage of the weight of sugar in their cane at an official average price which is calculated by Government officials every fortnight during the harvest. If, therefore, the selling price of sugar is high, the cost of cane to the mills is high, and therefore their total costs are likely to be high. A mill's costs of producing sugar vary, therefore, from year to year, sometimes by a large percentage; thus for the 1921–22 season the U.S. tariff commission estimated the net cost at the mills, including interest but excluding selling expenses, at 2.14 cents, but for the 1922-23 season at 3.67 cents, the difference being due almost wholly to an increase in the price at which the mills purchased their cane, consequent on an increase in the selling price of sugar. Even if complete statistics of costs at all mills were available, such information would therefore be of little use, for no reasonable meaning could be attached to averages calculated from it. The only reasonable meaning which can be attached to such a question as "What are the costs of production in Cuba?" is "What price is required to maintain the existing, or any given, volume of production?"

If such a question is asked with reference to the "long period," in the technical economic sense of that phrase, the price must cover

depreciation and interest. With regard to the latter, it may be observed that while bank interest rates are nominally 9-10 per cent., actually this is increased by various commissions, etc., to something nearer 14-15 per cent.: the costs of temporary accommodation, at any rate for the Cuban-owned mills, are therefore high, and in addition most of the mills, American even more than Cuban, have a considerable bonded indebtedness. My personal conclusion, based on a large number of estimates by wellinformed persons, is that in 1924-25 Cuba required a price level of 2.5 cents c. and f. New York* to provide the cane farmer with sufficient inducement to continue production, to cover the costs of the mills on that basis, and to meet the necessary selling and transport expenses. Since then, costs have probably been reduced owing to improved technique, etc., and the figure may now be put at between 2.30 and 2.40 cents. To this must be added a rate of profit suitable for such an investment of capital, at the least 5-7 per cent., and it may be concluded that the "marginal cost of production" of a $4\frac{1}{2}$ -5 million ton crop is not much below 3 cents, even to-day. Two-thirds of the production, however, would probably be profitable at 2.25 cents or a little higher. Cuba will in due course adjust her sugar industry to a 2 cent price level, but that will not be within the next five years. When consideration is given to "prime" costs, the problem becomes even more difficult, and any conclusions must be still more doubtful. An average figure for depreciation and interest would be 0.5 cents, and costs on this basis would therefore be about 1.85 cents. If the selling price of sugar stood at this level, however, the cost of cane to the mills would be greatly reduced; as the price falls, so this item of cost declines, and even at a low level this item amounts to about one-half of the total costs. For practical purposes, everything depends in the short period on the cane farmer's costs of producing the cane. By reducing his expenditure on weeding, etc., by reducing rates of wages, and so on, the cane farmer can for a year or two produce for a very small sum: the advantage of ratoonage is enormous under such circumstances. Such a lowering of the standard of cultivation is bound to make itself felt in reduced yield, if not in reduced acreage, before long, but Cuba will probably continue to produce 4½ million tons even if the New York price remains below 1.5 cents for another two years. At the same time, if the world ultimately wants such crops from Cuba or an increased production, both plantations and

mills will be in no physical state to respond for some time, even if the price rises considerably.

These remarks will at least illustrate the difficulties of assessing costs of production in

Cuba, even if the figures quoted are subject to appreciable error, as may well be the case. On this subject the only certain truth is that no one knows, or indeed can do so under the circumstances

VI.—THE RESTRICTION OF THE 1925-26 CROP.

It is unnecessary for our purpose to attempt to trace in detail the developments of opinion which finally culminated in a recommendation from the Planters Association to the President of Cuba that the 1926 crop should be reduced by 10 per cent. from the Secretary of Agriculture's estimate of 5,200,000 tons. Probably at least 80-90 per cent. of the industry were in favour of restriction measures of some sort, but the reasons for the attitude of the different interests in the industry varied considerably, and merit attention. The purely Cuban mills were almost all in favour because the weakest of them knew that they could not possibly weather 2 cent sugar, and the better of them were unwilling to see the Cuban share of the industry still further reduced in proportion to the American, while none of them were anxious for competition to work its will unchecked. The American interests were far less unanimous. The enormously powerful Rionda interests came out strongly pro-restriction; rumour's busy tongue said that the explanation was that Rionda and his associates had a large bull account, but it is perfectly reasonable to assume that they deliberately came to the conclusion that restriction was the right policy. On the other hand, the banks were violently opposed: they had sunk large sums of money in endeavours to obtain the benefits of largescale production, and their mills were now amongst the lowest cost producers. If production were restricted, this money would have been largely thrown away, and the eventual re-establishment of equilibrium through the climination of the weakest producers would be indefinitely postponed. The other American interests were spread between these two extremes, but there was in general a rather strong bias against restriction for two reasons. Nearly all the mills were heavily mortgaged, and it had become customary to compare the degree of mortgage in terms of the previous season's crop, i.e. so much per bag; hence if production was restricted, the degree of mortgage would be increased. Though pure windowdressing, this aspect of the matter is said to have received much attention in financial circles. Secondly, it was clear that if pro-

duction was restricted, less money could be borrowed from the banks against sugar produced. But against these concrete considerations and the uncomfortable feeling that restriction was "contrary to economic laws," there had to be set the consideration that, should the Cuban interests and those in favour of restriction appeal to the Cuban Government. it might fare ill with any declared opponents of restriction in the matter of quotas and so on, while at any cost the issue must be preserved from taking on a nationalistic Cuba versus the foreign capitalist complexion. Moreover, it must be realised that the prospect of 2 cent sugar seemed nearly as terrifying to many of the American interests as to the Cubans. Hence there were few voices raised against restriction, while those in favour were many and loud—a situation very commonly characteristic of the birth of restriction schemes, as our other studies will show.

Faced with this recommendation from the Planters Association, the Cuban President and his ministers would almost certainly have preferred to send it back with their blessing and nothing more. There is no evidence that at this time the Cuban Government had any desire to take a hand in the game. But the uncompromising opposition of the two American bank groups, and the wavering attitude of other interests, made it clear that restriction could never be instituted on a voluntary basis: unless the Government made it compulsory, there would be no restriction. Without restriction it was practically certain that a number of mills would close down, while for a time at any rate the industry as a whole would make insignificant profits. During this time, the Government would be deprived of by far the most important source of its revenues. Again, in many country towns and villages twothirds of the total income of the population is derived directly and indirectly from the local mill or mills; the situation is much the same. though often on a larger scale, as that in many colliery villages in South Wales. The closing of any appreciable number of mills was to be avoided at almost any cost from the Government's point of view. Doubtless others, besides the extreme nationalists, took the view that if the foreign capitalists suffered some loss by restriction, they were after all much more able to bear losses than the Cuban peasants: they should pay to avoid what would be disastrous to the Cuban nation. It could be only a short time before consumption would catch up production, and therefore restriction was the right policy. Finally, some definite Government action would at least put a stop to the ugly reports of revolutionary talk which were brought back from the country districts to the capital. Hence the Cuban Government felt themselves forced

to take the plunge.

The law of May 3, 1926, commonly known as the Verdeja Act, provided for a 10 per cent. reduction of the crop then being harvested. Article II of this Act created a temporary production tax of \$5 for each bag of sugar in excess of 90 per cent. of the estimated crop for each mill during the present year. The tax was, of course, prohibitive, but if incurred, it was to be collected in the same way as the ordinary revenue tax of 10 cents per bag produced: no new administrative machinery was required. The proceeds of the tax were to go to the Special Fund for Public Works, thus safeguarding the Government from any suspicion that they were merely increasing taxation, and emphasising its extraordinary character. Provision was also made to ensure that administration cane should be treated on exactly the same footing as colono cane: otherwise the mills would, of course, have cut the whole of their administration cane, and thrown the burden of the restriction on to their colonos. This comprised the very simple and straightforward restriction of the 1925-26 season. The crop was estimated by the Secretary of Agriculture at 5,200,000 tons: a 10 per cent. restriction should therefore have resulted in a crop of 4,680,000 tons. But the actual total assessment of the mills for the purpose of the Act eventually exceeded this estimate, while a few mills had already ground more than 90 per cent. of their cane before the Act,* so that the actual production in the 1925-26 season was 4,885,000 tons. The Verdeja Act was not, however, con-

fined to the current crop. Article I forbade the commencement of grinding in the next two seasons before the date fixed by the President for each locality, under penalty of \$5 per bag, while another section of Article II gave the President authority to restrict the next two crops in a similar manner "if in his

advisable for the basic interests of the industry, making report to the Legislative Branch." The President was thus vested with almost dictatorial powers, and Cuba was declaring herself prepared to restrict supplies until consumption had caught up again with production, so that the world was forced to pay a reasonable price, for no one supposed that it would take more than three years to re-establish equilibrium between supply and demand. The prohibition of grinding before a definite date embodied a reform long desired by many, and especially by the larger American mills. Normally the mill has to make advances every fifteen days during the growing season to its colonos to enable them to pay the wage-bills and other expenses of the growing crop: when the harvest begins, and the colonos send in their cane for sale, the mills first write off the accumulated debt of each colono,* and the colono actually receives in cash only the balance, if any. In turn the mills in most cases have to borrow from the banks and merchant houses the wherewithal to make these advances required by the colonos during the growing season. Now the custom had developed for the banks to refuse to make any advances to the mills after January 1st except on actual new crop sugar produced. Thus unless a mill had cash in hand, it was bound to grind a quantity of cane before January 15 sufficient to provide a basis for borrowing to supply the advances required by its colonos on that date, and the advances required would be much more than the ordinary growing season advances because the commencement of grinding would mean a big increase in the colonos' wage-bills. Thus some mills would find it necessary to begin grinding as early as mid-December, and if one mill in a district starts grinding its neighbours must do the same in order to retain their fair share of the local labour force. This early grinding is in a normal season very wasteful, for the cane is not really ready until mid-January at the earliest: the sugar content, which averages 10 per cent. in the first half of January, will rise to 12 per cent. in the first half of February. Thus the mills which had no need to start grinding early, but were forced to do so by a needy neighbour, had a grievance, and this was especially true of the larger American mills with their plentiful financial resources. The prohibition of grinding before a fixed date, as provided for in the Verdeja Act, should be looked upon, not so much as a measure of restriction (for if the date fixed were to involve, say, a month's

judgment he shall consider it necessary or * Such mills were not required to pay the tax provided they stopped grinding within three days.

^{*} Including such advances as the colono requires for harvesting.

postponement, the output would be actually increased through the greater sugar yield of the cane, provided the weather allowed grinding to continue to completion), but rather as a salutary reform introduced at this time because the Cuban Government saw therein a means to

placate American opposition to their policy of restriction. The fact, however, remains that the introduction of a later date for grinding does, of course, relieve the pressure of excessive supplies on the market at the time of its introduction.

VII.—THE RESTRICTION OF THE 1926-27 CROP.

The price of sugar was not immediately raised by the imposition of restriction, though it is at least probable that without it 2 cents would have been reached again by midsummer 1926. On September I, 1926, world stocks, including the Cuba interior carry-over, amounted to the enormous figure of 2,657,000 tons as compared with 1.612,000 on September 1, 1925, exclusive of the Cuba interior stocks. Whether there were appreciable interior stocks in September 1925 * is unknown, but there could hardly have been more than 200,000 tons. On this basis, consumption may be put at 233 million tons in 1925-26, an increase of a million tons on the previous season, production having reached 241 million tons. But prices now began to show a sharp recovery. On September 21 the Cuban Presidential decree No. 1505 prohibited the commencement of grinding before January 1, 1927. The preamble to this decree states that this decision "has been expressly approved by the majority of the millowners and the representatives of all the planters, which approval was given in the name of the above by a Special Committee of the National Association of Planters." It is argued that this postponement of grinding "defends not only the legitimate interest of the colono to obtain the greatest yield from his work, and prevents the destruction of the wealth such as would be the case if canes, still in the period of ripening, are begun to be ground, but also that all the producers are placed on a plane of absolute equality, and in the end, without materially harming private interests, an effective reduction of the total crop of Cuba is obtained, maintaining it near the limits which may be in proportion with the world's demand for the consumption of sugar." No definite limitation of the crop is yet fixed, on the grounds that a judgment cannot yet be formed, and that it would not be expedient in view of the international character of sugar production. It may be remarked that the effective reduction of the crop "by this postponement of grinding would really be only a

temporary holding up of new supplies, unless the onset of the rainy season compelled the stoppage of grinding before all the cane was finished. However, this was a bullish factor in the sugar market, and it was powerfully reinforced by the weather in Europe, which was most discouraging to the beet crop. As the autumn developed, it became clear that the European beet crop would show a considerable decline: the area planted had been very little larger than in 1925, and the weather had been infinitely worse. There was little probability that the U.S. beet crop would show any increase, while the Java crop of 1926 had been 300,000 tons smaller. prospects in other cane-producing countries were for at least no material increase. Consumption in the U.S.A. and in Great Britain was not showing signs of further expansion, but the Far East was buying heavily. Hence by December 1926 the c. and f. price New York had reached 3 cents, and with the publication of the Cuban President's decree of December 10 restricting the Cuban crop to 4.5 million tons, the rise continued, and the average for December was 3.31 cents.

With the new crop supplies from Cuba, prices eased off, but a 3 cent level was maintained from March to May. Consumption in the U.S.A. was, however, lagging in a very disappointing fashion, while in Great Britain the effects of the industrial troubles of 1926 were reinforced, from the importing point of view, by the growing volume of domestic production. Stocks were piling up in Cuba to an alarming extent. By July I the price was down to 23 cents, and there was still 2.2 million tons of sugar in Cuba, counting interior stocks, just as there had been a year before, though then the price was nearly $\frac{1}{2}$ cent lower. By October these stocks had been reduced by half, as had also happened the year before, but this time it had not been accomplished to the tune of substantially rising prices. The trouble in 1927 was no longer excessive production. Production, thanks mainly to the weather in Europe and Java, and to restriction in Cuba, showed a decline of nearly I million tons to

^{*} The probability of any appreciable carry-over in September 1924 is remote.

23.6 million tons. The trouble was that consumption had come to a complete halt. On the assumption made above, that there may very well have been 200,000 tons carried over in the interior of Cuba in addition to the visible carry-over of 1,612,000 tons on September 1, 1925, consumption in 1926-27 may be put at 233 million tons, the same figure as in the previous season; otherwise consumption in 1926-27 shows a definite decline, as in some well-known estimates. The point is not important, and cannot indeed be settled with the statistical data available: what is important is that consumption certainly did not increase. As it was, the world's stocks on September I, 1927, were 200,000 tons lower than a year before, and if consumption had increased by even half a million tons, the situation would have been immensely relieved. It must be judged a stroke of very hard luck for Cuba that the opportunity of short crops elsewhere was snatched from her by the apparent unwillingness of the world, and especially of Europe and the U.S.A., to consume more sugar. Should this continue, the outlook was exceptionally black. Java had increased her crop by nearly million tons, and the new cane, with its reputed 30 per cent. higher yield, had done so well that practically the whole island had been planted with it, so that a further large increase was likely in 1928. The area under beet in Europe had been greatly extended, and the prospects were extremely favourable. The same was true of the U.S. beet crop, while from nearly all the other cane-producing countries had come reports of increased plantings, especially from the protected territories of Hawaii and Porto Rico. Cuba must clearly either intensify her restriction considerably, or she might just as well abandon it altogether. Cuba chose the former, for at least it was true that prices were higher than they had been before restriction.

It is extremely doubtful, however, whether this choice commended itself to a majority of the industry. The purely Cuban mills certainly approved, though they were beginning to lose heart and hope of any speedy return to prosperity by way of restriction or any other means. On the other hand, the American interests had become much more solidly opposed to restriction, with the exception of the important Rionda group. This was largely due to dissatisfaction over mill assessments. The simplest method of assessment would have been to take the output of each mill in 1924-25 and reduce them all by a uniform percentage. This method was strongly urged by the Rionda group, but it met with

violent opposition by the two bank groups and other companies which had made extensive new plantings for the season 1925-26. It was another example of a difficulty common to all cartel organisations, namely, the objection of new producers to any scheme of restriction The Cuban based on past performance. Government decided, therefore, that each mill should send in estimates of its productive capacity for the coming season, which would then be approved or revised. This method of assessment provides unlimited scope for accusations of favouritism, and for general complaints and discontent. In ordinary Cuban business dealings, as well as in politics and in the operations of the Government Departments, there is what would be termed by Englishmen wholesale bribery and corruption, though it is so regulated by custom and unwritten but well-recognised standards, that its net effects may easily be The distinction sometimes over-estimated. made by the citizens of a neighbouring country to Cuba, between "legitimate" and "illegitimate" graft, applies very strongly in Cuba, though it receives less attention in ordinary conversation! Anyone with only a casual knowledge of Cuban life might have expected corruption to run riot over this matter of mill assessments. It is extremely difficult for a foreigner to investigate this matter, but my own impressions are that corruption played a very small part. Cuban standards of honesty are not the same as those of other countries, but they seem to have been better able to withstand this particular kind of temptation and trial! It is probably true that the purely Cuban mills as a group were assessed somewhat more liberally than the American and other foreign-owned mills, but this was due to the very natural inclination of the Cuban Government to be on the liberal side with their own nationals. That there was much differential treatment as between the Cuban mills or as between the American mills may be doubted. Most of the Americans with whom I have discussed this point complained that the Cuban mills had been more favourably treated than the American, but none of them that his mill was treated worse than other American mills. Many Cubans complained that the large American mills had either bought or terrorised the Cuban Government into giving them preferential terms, and if it were not for the opinion of several disinterested observers, I should have concluded that the assessments had been made with almost complete accuracy. Whether the Cuban mills received in general slightly better treatment or not, the fact remains that the assessment problem did not create serious. administrative difficulties, such as were encountered, for example, in the British rubber restriction scheme, though, of course, sugar prices never became so tempting as rubber prices. But naturally some irritation and discontent were aroused, and duly exploited by those American interests which were from the start opposed to restriction.

To return from this digression, the American mills would probably have shown a large majority against any intensified restriction, and so the industry by itself would probably never have taken the step. It was really the Cuban Government which took the initiative at this stage. As has been said above, their point of view was dominated by the desire to

prevent the closing down of any appreciable number of mills. Even if the increased costs of a restricted output meant small profits, and therefore only a small Government revenue, at a price of $2\frac{1}{2}$ -3 cents, yet without restriction prices would probably have continued at the 2 cent level, which would have meant a still smaller Government revenue, and, through the closing down of many mills, an army of hungry unemployed. Restriction was at any rate enabling Cuba to keep her head above water; it was the right policy, and for Cuba to return to unrestricted production, and to add another I million tons of sugar to an estimated surplus production of $1\frac{1}{2}$ million tons in the season 1927-28, seemed madness.

VIII.—THE RESTRICTION OF THE 1927-28 CROP.

The essential features of the plan devised at a conference of the Cuban President and other Ministers were known to the world at the end of the first week in September, but the law embodying their proposals was not passed until October 4, 1927. This Sugar Defence Law may be summarised as follows:

- Appointment of a National Commission for the Defence of Cuban Sugar, consisting of 5 members, to advise the President in the discharge of his duties under the law.
- 2. After the Defence Commission has prepared estimates of the quantity of Cuban sugar required (a) by Cuba itself; (b) by the U.S.A.; (c) by the rest of the world, the President is given power to fix the total amount of the Cuban crop, and its due proportional distribution under these three headings. The President is also empowered to fix the production quotas for each mill, and any sugar produced in excess of the quota shall be subject to a tax of \$20 per bag: at the same time he would fix for each mill the percentage of its quota which might be exported to the U.S.A.
- 3. Appointment of a Cuban Sugar Export Corporation to market all sugar in excess of the amount allocated to the U.S. market, i.e. the sugar under headings (a) and (c) above. The Cuban Treasury were to advance \$250,000 to provide the working capital for this Export Corporation, and were to be reimbursed by a special tax of I cent per bag pro-

duced by the mills, which would thus become the shareholders. Pending this evolution, the National Commission would direct the Corporation's activities. The mills were thus to be free to market only the percentage of their quota allocated for the U.S. market: the remainder was to be dealt with by the Export Corporation.

4. The President is empowered to transfer to the Export Corporation a percentage of the unsold stocks held at ports or mills on September 30, 1927, the total not to exceed 150,000 tons.

5. The law is to remain in force for the next

six seasons.

Such were the outlines of the new scheme. National Commission was quickly appointed, with Colonel Tarafa as the Chairman. Tarafa plays such an important part during the next two or three years that a word or two must be said as to his position and personality. He is said virtually to own Central Cuba Sugar Company, which owns four mills in Matanzas, though the actual production has now been concentrated into two of them. He is a director, and is said to have very extensive interests in the Cuba Company, which is a holding company controlling the Consolidated Railroads of Cuba and the Compania Cubana, which owns two large centrals. Tarafa acquired his reputation primarily as a railway man, and his advocacy of the legislation whereby the shipment of sugar was prohibited except from recognised ports, thus forcing the centrals to use the public railways when they might otherwise have built direct lines to the coast and put their sugar on shipboard at a much lower cost, did not endear him in certain quarters. Anyone studying the part he has played in the Cuban control of sugar might suppose that he was a sort of Cuban national hero and popular leader: the reverse is nearer the truth. The Cubans both distrust and fear him. They distrust him because they feel he has too much influence with the Cuban President for one who is so definitely interested in sugar and in railroads carrying sugar, and in particular because it is commonly believed that he uses his inside political knowledge to "play" the New York Terminal market. the same time they also fear him because of his cleverness and ability. He is undoubtedly a man of big ideas and restless energy, who has the ambition of an American business leader, and as such he towers above the Cuban politicians. The President came to lean on him more and more, probably because he felt that Tarafa was the only man capable of pulling this very difficult and complex business of restriction through to a successful conclusion. No one can say whether his compatriots are right in thinking that he plays solely for his own hand, but it is significant that there are several Americans in the trade who feel that he is more disinterested than they give him credit for. Tarafa is a Cuban with an American brain for business, and foreigners perhaps understand him better than the Cubans.

Under such a chairman the National Commission set about studying the statistical position and prospects with a view to advising the President as to the limitation of the coming crop and its distribution. Its first definite action, however, was as its alter ego the Export Corporation. On October 1, 1927, stocks in Cuban ports totalled nearly 700,000 tons, while there was still half a million tons in the interior. The President, therefore, exercised his power, under heading 4 above, to transfer 150,000 tons to the Export Corporation. The Corporation sold the whole quantity on October 13 to a refiner in Great Britain at a price equivalent to about 2.33 cents f.o.b. Cuba. The price then ruling in the New York market was equal to 2.79 cents f.o.b. Cuba. Naturally this transaction attracted a good deal of attention and some dismay amongst the European beet exporters. Even allowing for some discount on such a huge purchase, the price was quite definitely a "dumping price," and it is perhaps not extravagant imagination to suggest that this sale was partly intended as a suitable prelude by Cuba to the conferences which were shortly to be arranged with the European beet producers: in other

words that, Tarafa desired to give them a taste of what was to be expected from Cuba under his new regime. For within a few days Tarafa was on his way to Europe to try and ensure that restriction in Cuba should not be

neutralised by increased beet crops.

During the second week in November, representatives of the sugar industries of Czecho-Slovakia, Germany and Poland conferred with Tarafa in Paris. The official communique stated that the sugar industries of these countries "will henceforward support the policy of Cuba to normalise and stabilise relations between production and consumption of sugar throughout the world. An International Sugar Committee will be formed, comprising two delegates of the sugar industry of each country represented on the conference, and of those countries which shall subsequently join the Committee, whose principal function will be the regulation of the production and consumption of sugar throughout the world. The ratification of the general agreements will take place during the present month." The draft scheme thus agreed upon provided that the three European countries should take all possible steps to increase consumption in 1927-28, and should regulate sowings for 1928–29 on condition that Cuba restricted its 1927–28 crop to 4 million tons. The Committee was to prepare the way for a full conference in October 1928, when Cuba was to table detailed proposals for the regulation of the production and distribution of each country's crop. Any surplus production was to be placed in the hands of an international company or deducted from the 1929-30 quotas, while a deficit in one country's export quota was to be added to the quotas of the others in proportionate shares. Cuba, however, admitted the principle that her contribution to the common sacrifice should be proportionately heavier than that of the other countries, since her export was so much larger and she was therefore most affected.

This seemed a very excellent start, and Tarafa proceeded from Paris to Amsterdam. There, however, he found himself running against a brick wall. The directorates of most of the Java sugar companies are in Holland, as also that of the central marketing organisation: the Java industry is, in fact, controlled from Holland. The Dutch made it quite clear that they did not feel the pressure of present prices to be so severe as to warrant any consideration of restriction measures: when the price fell below 2 cents they might begin to think about it, but at 23 cents and above they were satisfied that they could carry on, especially since the 30 per cent. higher yield of the new cane was so greatly reducing their costs. The Dutch, in fact, were putting their faith, first in their strong selling organisation, and secondly in the expansion of consumption in their chief markets of the Far East, which seemed to show no such slackening off as was being

experienced in the U.S. and Europe.

Tarafa, however, was able to return to Cuba with apparently solid gains from Paris even if he had added nothing in Amsterdam. It will perhaps be convenient to recount briefly the subsequent history in Europe. The Paris Convention was duly ratified. But Czecho-Slovakia, Germany and Poland had apparently been fired by Tarafa's gospel of restriction and regulation, and representatives of these countries met again at Prague in December, and in January signed a pact at Berlin, which fixed the combined total for export during 1928-29 at 1,150,000 tons of which Czecho-Slovakia's quota was to be 66 per cent., Poland's 17½ per cent., and Germany's 16½ per cent. If this total export figure was raised as the result of the conference to be held with Cuba in October 1928, these ratios were to be preserved; but if the figure was reduced, new ratios were to be negotiated, while it was provided that such a reduction must be unanimously approved. It was also expressly laid down that these arrangements would not remain valid if no agreement was reached with Cuba in the autumn. It may be observed that this total for export of 1,150,000 tons was approximately the same as the quantity exported in 1926-27, when the total European crop was under 7 million tons, while the 1927-28 crop exceeded 8 million tons, which was the immediate pre-war level. The scheme undoubtedly did involve a substantial degree of restriction.

Thus though the agreement appears of a somewhat contingent character, it contained definite possibilities from Cuba's point of view, and it was clear that Europe kept moving even after Tarafa's return to Cuba. In order to clear out all stocks, the commencement of grinding was postponed until January 15, 1928. On the 21st, a presidential decree was passed to give effect to the National Commission's decisions in regard to the size and distribution of the crop. These may be summarised as follows:

I. Crop to be limited to 4 million tons.

2. The remainder of the unsold stocks of the 1926-27 crop, amounting to 250,000 tons, to be sold only in the U.S. (i.e. by the owners under ordinary marketing methods).

3. The requirements of the U.S. are estimated at 150,000 tons more than in 1927, viz. 3,300,000 tons. Of the new crop, 3,050,000 tons to be earmarked for the U.S., the balance being the 250,000 tons of old crop sugars.

4. To be earmarked for Cuban domestic

consumption 150,000 tons.

5. To be earmarked for sale outside the U.S. and Cuba by the Export Cor-

poration 600,000 tons.

6. The remaining 200,000 tons to be constituted a reserve, and held by the Export Corporation pending instructions to sell from the President, which instructions will only be given "in case of evident need," and if not sold, this reserve to be carried over for consumption in the year 1929.

7. The National Commission to make recommendations to the President as to the quotas for each of the mills, and the amounts which they shall be entitled to sell freely and which they shall deliver to the Export Corporation.

It will be convenient to examine first the theory of the scheme, then its mechanism, and then its actual operation and the results. At first sight it appears as though the scheme was exactly the opposite of what it should have been. A seller with a local monopoly usually endeavours to exploit his protected markets up to the hilt, and disposes of the remainder of his production wherever and at whatever prices he can: in other words, he devotes all his attention to a careful regulation of sales in his protected markets, and does not bother much about the surplus except to get rid of it quickly. Under the Cuban scheme, however, the U.S. market, protected from Cuba's point of view by the preferential tariff, was to be rationed but otherwise left to unregulated competitive marketing, whereas the dumping of the surplus was to be carefully regulated through the medium of a single selling agency established for the purpose. But the analogy is not sufficiently correct: a monopolist dumping his surplus production is still a single seller, whereas if the Export Corporation had marketed to the U.S., leaving individual producers to dump the surplus, there would have been many sellers scrambling together to get rid of their sugar, and buyers would have played them off against each other, with the result that the prices secured would have been much less than the buyers were really prepared to pay, and much less therefore than a single seller would have

The theory behind the Cuban scheme was that the U.S. could be counted upon to take a certain amount of sugar at a price which would include a substantial proportion of the 44 cents tariff differential, and that therefore what was required was to make provision for disposing of the balance of the crop without unduly depressing world prices: in other words, to eliminate the disastrous effects of competitive dumping. The theory of the Cuban scheme was reasonably sound, but its inevitable rigidity was a fatal weakness. It is clear that for success the U.S. demand must be gauged to a nicety, and this had to be done for a year in advance. Such an estimate involves, of course, an estimate of the U.S. domestic and duty-free supplies, and while the beet crop can be gauged satisfactorily by December-January, the cane crops of Hawaii, Porto Rico and the Philippines cannot. Apart from the difficulties of making such an estimate, it is obvious that buyers might postpone their demands for a few months by living on invisible stocks, and this might lead to price concessions by competitive sellers eager for cash. Yet under the scheme the making of a definite estimate is inevitable. The weakness of rigidity comes out even more clearly, however, in the pre-determination of the total crop, and the allotment of a definite quantity for export other than to the U.S. On January 21 the rest of the world knew that Cuba was counting on selling them a definite quantity. A monopolist dumping his surplus production is usually able to conceal from his customers the exact size of that surplus, but under this scheme Cuba had definitely to publish such information in advance. thus put herself in the same position as a street vendor with all his goods displayed upon his barrow, and if the citizens can control their hunger and thirst until the evening, they will be able to buy cheaper. The world's visible stocks of sugar on January 1, 1928, alone amounted to over 4 million tons, and in addition there were refiners' and middlemen's stocks, which in the aggregate must always make an appreciable total, and which could be allowed to decline far below the normal level when, as now, new supplies could be immediately obtained at steadily declining prices. There was, in fact, every incentive under the scheme for the rest of the world to sit tight until the Export Corporation was glad to make sales at any price. That this did not, in fact, happen to any great extent in the 1927-28 season was due to the luck that consumption in the rest of the world resumed its forward march with surprising vigour.

The inevitable rigidity of the scheme, whether as regards the U.S. or the rest of the world, was a very serious weakness. From Cuba's point of view it would obviously have been far better if the whole crop had been handled by the Export Corporation, and the less information the world was given about the Corporation's plans as to the size of the crop or its distribution, the better. But such a course was impracticable, at any rate at that time. For if the Corporation had handled the whole crop, arrangements would have had to be made to finance the mills pending the sale of the sugar—a problem which will receive attention later, since it was to prove so difficult as to wreck the Single Selling Agency which was eventually established. As it was, the mills were free to market nearly three-quarters of their production, and were thus able to finance themselves in the ordinary way. Moreover, such a scheme would have increased the opposition of the American mills, especially those shipping direct to the refineries which owned them, at a time when Cuba desired to conciliate and convert them to its general policy of restriction. Finally the greater secrecy would probably have led to suspicions by the European beet producers, whereas under the actual scheme everything seemed so

straightforward and above-board.

The mechanism of the scheme was as ows: Each mill received warehouse receipts for its authorised crop; so many blue slips for sugar which it was free to sell to the U.S., and so many pink slips for the sugar it was not free to sell, and which had to be held pending instructions from the Export Corpora-The pink slips, however, were negotiable receipts, and could be transferred to other ownership, the Corporation making payments direct to the person presenting the receipt. Since the value of the slips at the time the sugar would be sold was unknown, a buyer of them would be taking a big risk, and producers therefore financed themselves mainly by sales of blue slip sugar, which represented about 70 per cent. of the crop, and thus provided their immediate requirements. On the pink slips, payment was made by the Export Corporation as it collected the purchase price from its customers according to the ordinary trade customs. The Export Corporation was under no obligation to preserve an equality amongst the mills in respect of the amount of pink slips sold: this would, in fact, have been impossible, for some mills had quite inadequate storage capacity, while it was obviously more economical to satisfy an order from one or a few mills rather than to draw a few bags from all or even a large number. The Corporation therefore fulfilled its contracts from the most convenient and economical sources in each case, subject to the limitations of storage capacity at the different mills. Naturally attention was paid to the preservation of a roughly equal treatment so far as this was compatible with economy and the storage factor, and eventually an arrangement was made whereby those producers whose reserved sugar was sold by the Corporation before June I paid interest, which was passed on to those whose sugar was not sold till later. The whole mechanism so far as the producers were directly concerned appears to have worked both economically and smoothly.

For the purpose of making its sales, the Export Corporation maintained a sales office in Havana. The Corporation was perfectly willing to deal with buvers direct, but in general the latter continued to make use of brokers for the usual reasons of secrecy, the advantage of a third party in the event of arbitration, The broker would hand in a bid at the Corporation's office, and the Corporation would then either accept or reject it. If accepted, the Corporation had the right to demand a deposit of \$1 per bag as security that the sugar would not be diverted, while on the high seas, to U.S. ports, the amount being returnable on production of the landing certificate. But this requirement was never actually enforced, since the firms which bought sugar from the Corporation were all wellestablished responsible concerns whose word could be relied upon. In the main this mechanism worked satisfactorily, and the only issue of importance is whether it would have been advantageous for the Corporation to quote a price and offer to sell, instead of waiting for bids. It cannot be said that the actual course of events suggests that this would have been desirable, but it is clearly possible for a situation to develop in which the two sides of the market got out of touch; for example, the seller might have been refusing a succession of bids and the buyers might have come to the conclusion that, since they were prepared to offer no advance, it was useless to go on submitting bids: if then the seller changed his mind and became willing to make concessions, the buyers might not realise it for some little time. But it would be easy enough for the seller in such a case to give the required hint, even if he did not openly offer to sell. Clearly, however, there was nothing to be gained by this self-imposed limitation not to quote a price unless offers to sell were held to be inconsistent with the dignity of such a state organisation—

and therefore it might just as well not have

been imposed.

The actual course of events may now be briefly surveyed. For the month of December 1927 the New York c. and f. price averaged 2.92 cents; for January 1928, 2.72 cents; for February, 2.48 cents, and for March, 2.74 cents. In January the New York price was roughly II points over the parity with London: by March the position had been almost exactly reversed. At the end of February the Export Corporation had disposed of the whole 600,000 tons allocated to it for sale to countries other than U.S., and on March 29 it sold 50,000 tons of the reserve of 200,000 tons. It was clear that considerable errors had been made in gauging consumption. The U.S., with greatly increased duty-free supplies, was proving most unwilling to take Cuban sugar, whereas Europe was, relatively speaking, tumbling over itself to secure supplies. European consumption was, in fact, expanding so vigorously that, instead of pursuing the waiting policy which might have been expected, Europe seemed determined to make Cuba realise that her allotment was insufficient. Consumption in the U.S. was outdoing expectations, though to a much more modest extent, but so was the production of the countries within the tariff wall. The U.S. beet crop was 100,000 tons greater than in the previous season, while the cane crops of Porto Rico and Hawaii each also roughly that much greater, and the Philippines were more than 50,000 tons greater. In all, the U.S. dutyfree supplies were nearly 400,000 tons greater, and hence, though consumption in 1928 was to show an increase of 250,000 tons, the U.S. found it necessary to buy from Cuba not 150,000 tons more, but roughly that much less. During April and May the New York price was maintained at a little above 2.6 cents, but stocks were piling up in Cuba, and the U.S. still maintained its lack of interest. On May 3, and again on May 24, the export Corporation had sold 50,000 tons of the reserve of 200,000 tons placed at its disposal, and on June 7 the remainder was sold. Clearly Cuba's hopes of the U.S. market were not to be fulfilled: she was making more money on her surplus sales to Europe than on sales to the U.S., and even so the sales in that favoured market were quite unsatisfactory in volume. Things were becoming topsy-turvy.

It was not altogether a surprise, therefore, when, on June 12, a decree was signed by the President transferring 300,000 tons of the original U.S. allotment into the control of the Export Corporation. The decline in price was

now resumed, and Europe, knowing that she could get this 300,000 tons, and realising that the U.S. demand was being satisfied without the expected call on Cuba, may be said perhaps to have sat back until Cuba was willing to let it go pretty cheap. When, on July 19, it was announced that the whole quantity had been sold to British refiners at a price equivalent to 2.34 cents f.o.b. Cuba, the world was not only staggered at the magnitude of the transaction, but also at the apparent desperation of the Export Corporation. It certainly seemed as if these refiners had made a good bargain, but, as events were soon to show, it was, in fact, a very good bargain from Cuba's point of view. At the time it seemed a terrible sacrifice by the Cuban industry, but prices, even for transactions of normal size, have yet to regain that level, and if that 300,000 tons had remained unsold, the situation would have been even more desperate than it actually became. It may be argued that this large scale was itself responsible for the subsequent decline in price, in that it filled the requirements of exporters for some time ahead: in other words, that Cuba might have been able to sell this amount during the next three months in small lots at a higher average price than that obtained in the single transaction. It is probably not desirable in the ordinary way for any seller to make single transactions of these proportions, because buyers are thus made independent of the market for periods too long to be healthy from any point of view. But in the particular case now under consideration buyers were already holding back, knowing that this sugar must shortly be sold, and it was in the best interests of Cuba to end such a condition of affairs as quickly as possible. The Export Corporation in this matter executed a bold and clever stroke, and thereby rounded off a career of which the best salesmen in the sugar industry might have been proud. Both Cuban and American producers, as well as the big New York brokers, are agreed that, given the whole scheme of control, upon the merits of which there is, of course, sharp disagreement, the Export Corporation performed its functions with very great marketing skill, though the results could not under the circumstances be of the nature of positive gains.

The assertion that the British refiners who purchased so much sugar at this price made a bad bargain must be understood as meaning only that if they had waited a little longer they could have got it much cheaper. Whether they could have waited is a question which they alone can answer, and especially in view of the current relatively small visible stocks of raw sugar in

Great Britain, it may be that they could not, and that from their point of view the transaction was eminently justifiable. Nevertheless, it does seem as if they were insufficiently well-informed as to the change of public opinion in Cuba regarding the regulation of the sugar industry. During the spring of 1928 Cuban opinion began to swing rapidly and heavily against the whole policy of restriction. Local factors carry much weight in an island like Cuba, whose inhabitants think of the rest of the world only in terms of sugar, and there were two such local factors in particular which turned them against restriction. The first of these was the realisation that the cane left uncut in the previous seasons was getting dried up and useless, and this seemed such a terrible waste after all the money which had been spent in cultivating it. The second was that the working people who should have been employed in harvesting were unemployed, and therefore suffering want. Moreover, a 23 cent price level meant profits only to a very few of the largest and most modern American mills, for the drastic restriction of more than 20 per cent. meant a considerable increase in costs of production, and therefore it was easy to forget that without restriction prices as well as costs would have been lower, and to argue that losses might even be smaller, and things in general no worse, if restriction was abandoned. It was indeed a most debatable point. Restriction had not only failed to raise prices or even stop their fall, but it seemed as if the other sugarproducing countries of the world had taken advantage of restriction by Cuba to effect a large increase in their production. Tarafa might boast of his doings in Europe, but the fact remained that while he was there, Europe was busily harvesting I million tons more beet sugar than the year before, and there were no reports of smaller sowings for 1928-29, but rather the reverse. Similarly, though Cuba was producing I million tons less, the total cane production of the world was \frac{1}{2} million tons more than in 1924-25. The opinion gained ground that Cuba was cutting her own throat, and that soon the world would want no sugar from her at all. However one-sided and lacking in truth these views may actually have been, they were undoubtedly gaining credence amongst the Cubans, while the American opponents of restriction were able to point to the course of prices in justification of their attitude. creation of the Export Corporation had brought the refiners owning sugar mills into open opposition as well as the groups controlled by the two banks, for the refineries naturally objected to the compulsory diversion to Europe of 30 per cent. of the restricted production of their mills. But it was the allotment of quotas for 1928-29 which most displeased the American interests. This was perhaps only natural in view of their all-round reduction, though there is still no evidence of serious discrimination. But in March a decree was issued providing that every planter and mill with administration cane should leave 10 per cent. of good cane uncut, unless they got a dispensation from the Sugar Commission. The Sugar Commission had apparently come to the conclusion that many mills had exaggerated their estimates of cane available in order to get higher quotas. By putting on this further restriction, the Commission obtained direct supervision. No hardship was inflicted, for any mill could claim that it had insufficient cane to meet its quota and yet leave 10 per cent. uncut, and after investigation the case could be dealt with on its merits. But it naturally infuriated any mills which thought they had been clever in submitting excessive estimates, while all felt that, having tied their hands, it was indecent to tie up their arms as well. There seemed, in fact, to be no limit to what the President would allow Tarafa to do, and no knowing what the latter would next propose.

By midsummer 1928, therefore, the position was that the American interests were more or less solidly against the continuation of the restriction policy, while the Cubans had completely lost faith and heart in it. Eventually, in August the American interests wrote to the President asking that there should be no restrictions whatever in the coming season. Faced with what amounted to an ultimatum, the President gave way, replying that he personally was against any restriction except that on new planting, though it might be deemed advisable to prohibit grinding until January 1, 1929. This was followed on August 30 by a Presidential Decree removing all restrictions as to the markets in which the balance of the 1927-28 crop might be sold: stocks in Cuba at that date totalled 1,400,000 tons, though some of this was probably already sold and merely awaiting The President had, in fact, been shipment. won over by the American interests, and the Cuban sugar interests, and indeed Cuban public opinion, quietly acquiesced, not because they hoped that without restriction things would be better, but because they felt restriction or no

restriction were equally hopeless. Tarafa in utter disgust resigned not only the chairmanship of the National Sugar Commission, but all his public appointments, and retired to the country, leaving the Americans, so to speak, in possession of the Presidential Palace.

The handling of this reversal of policy could hardly have been worse. Even if he had in his own mind decided to end restriction, the President should have refrained from publishing the fact to the world at an unnecessarily early stage, and the American business men who provoked his action, acted very foolishly, unless they thereby made on the speculative market more than they undoubtedly lost, and lost quite needlessly, on the subsequent sale of their sugar! The removal of restriction in Cuba meant roughly another I million tons increased supplies, and therefore the greater the prospect of removal, the lower the marking down of the price of sugar. The publication of the President's personal views made removal a virtual certainty, and the decline in price was at once accentuated. The average monthly New York c. and f. prices were as follows: May 2.68, June 2.52, July 2.41, August 2.38, September 2.22, October 2·14, November 2·09, December 2·16. It seems only common sense to suppose that if the Cuban Government, whatever their private conclusions, had bluffed vigorously to the outside world and kept up every appearance of faith in restriction until the last possible moment, buyers would have remained in doubt, and would therefore have paid better prices than they did in fact do, and bought the same quantity, for world consumption in 1927-28 increased by nearly $1\frac{1}{2}$ million tons, and was so nearly equal to world production that the carryover on September 1, 1928, was less than 100,000 tons greater than in 1927. As it was, Cuba gave away more than I million tons of the restricted 1927-28 crop at, so to speak, nonrestriction prices. There was no possible advantage in announcing the end of restriction until January 1929 at the very earliest, and the losses on the 1927–28 crop might have been very sensibly diminished if the President had not apparently lost his head when faced with the American ultimatum, for an explanation along the lines that the Americans would be bigger losers in the aggregate than the Cubans, and that the President acted in a spirit of petty revenge, is a little too ingenuous.

IX.—THE UNCONTROLLED CROP OF 1928-29.

The only restriction on the 1928-29 crop was the prohibition of grinding before January 1, and though some of the American mills desired to begin earlier because they feared a shortage of labour for dealing with an unrestricted crop, owing to the Cuban Government's restriction of immigration from Haiti, the more sensible majority prevailed. But any feelings of relief which producers may have entertained in the summer of 1928 at the prospect of no restriction, soon gave place to utter dismay. By the end of January 1929 the New York c. and f. price was below 2 cents, and there seemed no reason why the fall should be arrested, for the Cuban mills were underbidding each other in a thoroughly disorganised and reckless manner. The fall in prices was frightening the Americans, but it was really terrifying the Cuban mills. As early as mid-January, proposals had been put before the Planters Association by some of the members to establish a Single Selling Agency, and so remedy the "weak selling," but this was heavily defeated. By March, however, many of the big American interests had come to the conclusion that the Cuban Government, either on its own initiative or at the instigation of the Cuban mills, would shortly take a hand again in the game. How far the Americans felt that something must be done to relieve the situation, cannot be definitely stated, but on one thing they were certainly agreed, namely, that if anything was to be done, it was not to be done by the Cuban Government. Hence the formation in March of a Joint Foreign Sales Agency by most of the important American concerns, should probably be regarded not so much as a genuine attempt to remedy matters, but far more as an attempt to forestall any action on the part of the Cuban Government. prime mover in this scheme was Manuel Rionda. He had all along been a supporter of restriction, and with a lifelong experience of both the commodity and the speculative sugar markets, he probably realised as well as anybody the unnecessary loss which was being caused by the disorganised weak selling of the mills in their urgent need of cash. But it must also be said that as a speculator he had probably been none too well pleased with the apparent ascendancy of Tarafa over the President, fearing that Tarafa was not above using this power for his own ends in the New York terminal market. Hence he was both genuinely disposed towards some measure of control, and also most desirous to keep Tarafa in exile. Rionda therefore became the manager of this Joint Foreign Sales Syndicate. Besides his group of concerns, the membership of the Syndicate included the General Sugar Estates Corporation, the Punta Allegre Sugar Co., the Cuban Trading Co., the Royal Bank of Canada, the Cuban Dominican Sugar Co., the Espana and Trinidad Co., the Atlantic Fruit Co., Cuban Canadian Sugar Co., the Guantanamo Sugar Co., the New Niquero Sugar Co., the Revere Sugar Co., and the Cuban

American Sugar Co. Thus with the exception of the mills owned by the American Sugar Refining Co. and the United Fruit Company, neither of which were concerned in the sale of raw sugar at any rate outside the U.S., and the Cuba Company, which was presumably too much under the influence of Tarafa, practically all the big American producers were represented. The total output of these firms in 1928-29 was approximately 2 million tons, but the scheme only concerned sales outside the U.S. The members were to pool not less than I million tons, which was to be sold by the Syndicate through brokers in the ordinary way. An advance of 95 per cent. of the sale price would be made, and the remainder was to be paid when the returns from the total sales had been received. An invitation was to be extended to all producers of sugar to turn over to the Syndicate such amounts as they desired above a minimum of 2000 tons. The Syndicate apparently got to work at once, for early in April, sales to Great Britain aggregating 30,000 tons at prices 7 or 8 points above the New York parity were reported. The response to the general invitation was, as might have been expected, extremely limited, for the Cuban mills were hardly likely to be willing to place themselves in the hands of the Americans, least of all if Rionda was at the bottom of the scheme. Of the subsequent history of the Syndicate, little information is available: it succeeded in selling its sugar before midsummer, but it certainly does not appear to have been able to check the fall in price, and whether its members were satisfied or not, they alone know.

The promoters of the Syndicate, however, certainly failed in their major objective, which was not so much to improve the price of sugar as to forestall any intervention by the Cuban Government. It had, in fact, the very opposite effect to that desired, for the Cuban Government was piqued by what they conceived, and more or less rightly, to be an attempt by a group of foreign capitalists to restrain them from the exercise of their sovereign powers. Moreover, public opinion was once more beginning to demand that the Government should make some attempt to save Cuba from the impending disaster which a continuance of the decline in prices would inevitably precipitate. Whether the Cuban President re-established friendly relations with Tarafa and blessed his mission to New York, or whether Tarafa took the initiative, and having gained a measure of support, reestablished his supremacy, is difficult to say. But the point is not of importance compared to the fact that Tarafa once more appears upon the scene and quickly walks to the centre of the stage. It is probable that, but for American opposition and the difficulties of finance, Tarafa would have tried to establish a Single Selling Agency for the whole crop in 1927-28, and that the Export Corporation was in his eyes always a poor second best to complete unified control of marketing. idea was by no means novel even then: it had been talked about for years. Now, in 1929, Tarafa had a trump card in his hand, and he played it for all it was worth in an attempt to rally the American and the Cuban interests under his flag. It has been said that the one common bond between the Cuban and the American mills, and also between the various divergent American interests, is their common desire to lower the American tariff on sugar. The tariff is the one, and almost the only, rallying-point for the industry as a whole, and the tariff was due for revision during the summer of 1929. Tarafa's trump card was his argument that if a Single Selling Agency was established, Cuba should be able to raise the New York price above world parity by the 44 cents of her tariff preference, and that this should go far to placate the U.S. domestic producers' campaign for a higher tariff, which, with the New York price at 10-20 points below the 2 cent level, was obviously likely to be extremely vigorous: at the same time, if it did not placate them, it would obviously weaken their case. Tarafa presented this argument both in New York and in Cuba, and preached it with great effect, particularly to the Cuban-owned mills and the Cuban Government, since in their eyes the prospect of a substantial increase in the U.S. tariff, with its consequent stimulation of dutyfree production, seemed to set the seal on the doom of Cuba's sugar industry, and therefore on Cuba's whole economic welfare. Tarafa conducted his campaign with the greatest energy and skill, and gradually worked up the industry to a state of general agitation and excitement. Eventually, at the end of June, a meeting was held at which no less than 98 per cent. of the industry was present, and no less than 95 per cent. voted in favour of the Single Selling Agency scheme. Nothing but the tariff issue could have produced such unanimous support, though the nature of that support left much to be desired. The American interests had done their best to obviate any revival of Government control, and the proposed scheme involved far more direct intervention by the Government than ever before. But they were frightened by the new tariff proposals, and they probably realised that

they had lost the ear of the President, and that if they did not follow Tarafa's lead, he would drive them with the Presidential whip. It was better to show a bright face, and participate in the proposed scheme rather than have no say at all in the matter. The Cuban interests disliked Tarafa and distrusted him, while they entertained no great hopes of the success of the scheme. Nothing, however, could be worse than the existing situation, and so there was no great harm in allowing Tarafa to experiment, while if he really did succeed in preventing an increase in the U.S. tariff, that would certainly be a great score. Though, therefore, Tarafa gained so much support, it was of a rather grudging and indifferent character: there was not that whole-hearted belief and enthusiasm which commands the self-sacrifice needed to surmount great difficulties and to withstand great strains.

Tarafa carried the resolutions of the meeting to the President, who under the circumstances naturally promised to give effect to the united desires of the industry. Had there not been the direct issue of the tariff to arouse such universal support for the scheme, it is probable that Tarafa would have persuaded the President to take the initiative, but actually the President had only to give effect to the virtually unanimous and definitely declared wishes of the industry, and he must have been truly thankful to be able to avoid any further responsibility. On July 20 Tarafa issued a public statement to the effect that a presidential decree was being prepared establishing a Co-operative Export Agency, which would take over all unsold stocks in Cuba on July 31, and which would market all future crops. On July 26 such a decree was signed and published by the President, but the date of commencement was fixed not for July 31 but for August 31. This was a somewhat extraordinary change of plan. It may have been that Tarafa found the necessary machinery could not be set in motion so quickly as he had imagined and that postponement was inevitable. Such an explanation is simple and sufficient, but it is not the explanation which has gained popular credence. The popular explanation is that Rionda and several of his American friends had very heavy bear accounts on the New York terminal market, and that if the Single Seller had been established as from July 31, they would have been badly caught by the resulting rise in price before they could liquidate: accordingly, they took the President on a fishing party and there persuaded him to give them a month's grace! Tarafa is said to have been furious when he was informed of the change, though it may be observed that rumour has not credited him with a heavy bull account on this occasion. This very delightful little story may or may not be true either in whole or part, but it well illustrates the preoccupation of the Cuban, and even of the American mind, with the doings on the New York terminal market, and their instinctive feeling that the explanation of any unusual development is to be found there.

Tarafa, however, had not by any means confined his activities to Cuba and the U.S. The fall in prices had frightened not only the Cuban sugar industry, but almost every producer in the world. Producers within the U.S. tariff wall were pinning all their faith and devoting all their activities to the raising of that wall still higher, but the European beet producers, since they already enjoyed almost unprecedented protection or equivalent bounties, could hardly hope to solve their troubles in the same way. Led by Czecho-Slovakia, which is by far the biggest exporter of beet sugar, the European producers were rapidly becoming convinced that some international control of exports was absolutely The Czech industry sent reprenecessary. sentatives to Cuba, and Tarafa was, of course, only too pleased to respond, and to facilitate the resumption of the negotiations which had so sadly come to nought the year before. Eventually a long series of conversations and conferences was begun at Brussels in June, and continued at intervals. Tarafa was too busy to go personally, and Cuba's representative was Louis N. Perez, an extremely able man of sound judgment but without Tarafa's enthusiasm for controlled production and marketing, and without his driving-power. Tarafa had, however, learnt his lesson in 1928, and he was not going to set too much store by agreements with Europe. Though it had been expressly stipulated that the Berlin scheme of export quotas would be invalid if no agreement was reached with Cuba for the 1928-29 season, yet Cuba felt that Europe had not played the game properly: Cuba had shouldered the whole burden in 1927-28, and Europe ought somehow to have eased that burden so that it did not break Cuba's back. In 1929 Tarafa felt that Cuba's position was much stronger. With the crop under centralised control, Cuba would be able to get the full 44 cents differential in New York, and even if the world price remained very low, she would not lose more than other producers. Europe had not been at all pleased with an unrestricted Cuban crop of 5.2 million tons in

1929, and if Europe was not careful the next Cuban crop would be bigger still. Hence Cuba was not supplicating Europe in 1929 as she had been in 1927-28, for, apart from the new weapon of the Single Seller, Cuba felt that the European beet producers had now shot their bolt so far as increased production was concerned: the highest pre-war crop had been equalled in 1928-29, restoration was complete, and further expansion seemed most improbable. What worried Cuba far more. was the possibility of further expansion behind the U.S. tariff wall, especially if it were raised higher. Any considerable increase in the U.S. beet crop seemed unlikely, and opinions differed as to the potentialities in Hawaii and Porto Rico, but there was unanimous agreement as to the possibility of an enormous expansion in the Philippines. The crop had been doubled since the 1922 tariff, and planting had been very heavy in anticipation of a higher tariff in 1929. But the leading politicians in the islands have long realised that when the Philippines gain their independence, the U.S. will impose a tariff on Philippine sugar, and that if a big industry is built up on the existing duty-free basis, serious trouble is likely to ensue if that basis is changed. Hence the Philippines were ready to discuss with Cuba a reasonable restriction of new These discussions had the tacit planting. approval of the U.S. Government, receiving the powerful support of Secretary Stimson, who used to be Governor of the Philippines. Negotiations were thus proceeding during the latter part of 1929, not only with Europe but also with the Philippines, and in Cuba the latter negotiations were considered by far the more important, and, moreover, the more hopeful.

Returning to Cuban home affairs, it may be observed that the campaign for the establishment of a Single Selling Agency and its successful issue in the decree of July 26, had been sufficient to raise the New York average monthly c. and f. price from 1.75 cents in June to 2.10 cents in July. The postponement of the date of commencement resulted in an average for August of 2.05, but for September it rose to 2.22 cents. On July 1, stocks in Cuba amounted to 2,292,000 tons: by October I, there had been a reduction to I million tons. It is estimated that the Single Selling Agency took over about 1,300,000 tons of unsold sugar on September 1. During the 1928-29 season, world production had increased by about 1.3 million tons, considerably less than had seemed likely at the beginning of the season. The increase of \frac{1}{2} million tons in Java had been offset by a reduced crop in India, and small increases in some other cane-producing countries had been offset by small decreases in others, as, for example, in Porto Rico owing to hurricane damage, leaving only the net addition of I million tons from unrestricted production in Cuba, together with an increase of 300,000 tons in the European beet crop. Consumption at the very low level of prices had succeeded in swallowing over $I_{\frac{1}{2}}^{1}$ million tons more, thus leaving a carry-over of 2.8 million tons, an unheard-of amount, but less than at one time might have been expected: roughly one-half of these stocks were in Cuba. That the mere announcement of the establishment of the Single Seller Agency should have had such an effect in raising prices, when these enormous

stocks were available, seems somewhat surprising, but the outlook was for no considerable further increase in production, while there was no certainty whatever that consumption would not shoot ahead and remove all the surplus stocks during the coming season. A price level of $\mathbf{I}_{2}^{1}-\mathbf{I}_{3}^{2}$ cents f.o.b. Cuba, when world production and consumption were nearly in equilibrium, seemed low enough even if there were \mathbf{I}_{2}^{1} million tons surplus stocks,* and the announcement of the Single Seller just gave the impetus which the market required to raise prices to a level which would not, at any rate for a time, result in any drastic curtailment of supplies through the inability of producers to carry on.

* I.e. allowing 1 million tons as the normal level of convenience.

X.—THE CO-OPERATIVE EXPORT AGENCY, 1929-30.

The launching of the Single Seller scheme was therefore most successful, and Cuban opinion was strengthened by the apparently concrete evidence of its power to terrorise buyers. By the decree of July 26 the President had appointed the Sugar Export Corporation, which had only been suspended and not actually dissolved the year before, to act as the Single Selling Agency, pending the organisation of the agency on the proposed co-operative basis. It was also provided that the President of the National Commission for the Defence of Sugar should be ex officio president of the new Cooperative Export Agency. Further, the President of the Republic reserved the right to veto or suspend the Agency's resolutions "at any time that the resolutions of the board of directors might affect the stability and proper functioning of the Co-operative Export Agency or the international pledges and agreements which, for the benefit of the sugar industry, may be entered into by the Executive with other bodies or representatives of industries." This, however, should not be regarded as constituting the Export Agency a State institution, such as the Export Corporation had been. The whole business of selling the sugar was entirely in the hands of the Agency, and for practical purposes the Presidential veto could only concern the quantity to be sold, either in the aggregate or in particular markets. The American interests had fought hard to restrict the Cuban Government's powers of intervention to a minimum, and on the whole they had succeeded, for though Tarafa may have desired more power for the State, the President and his Ministers were probably only too thankful to be excused.

In the ensuing elections to the board of directors, good care was taken to placate the American interests by giving them ample representation, and some of those who had at one time been the sharpest critics of the scheme, found themselves effectively muzzled by their election to office. The Cubans succeeded in keeping Tarafa off the board, and also Rionda, on the ground that they were interested parties. Indeed, it seems that mutual jealousies and fears resulted in the non-election of nearly all those men who by their experience were most fitted to perform the work which the Agency had to do. With one notable exception, the American representatives were the managers of Americanowned mills in Cuba, and as managers they had had little to do with the marketing of sugar: that was not their primary job. The Cuban representatives were also quite inexperienced in marketing, compared with the Riondas or even Tarafa, and several others. It is indeed a great difficulty for nearly all raw material producing countries to find within their borders men who have first-class experience of the world's chief markets for their products, or even adequate knowledge of the many factors in such marketing operations, for the world's markets are usually far away at the chief centres of consumption, and a man must make their study his life's work. A knowledge of the primary sugar market in Havana in so far as it can be said to exist, or even of the world's markets as seen from Havana, is a quite inadequate equipment with which to tackle the distribution of 5 million tons of sugar throughout the world at prices which must largely depend upon the seller's own actions. This generalisation applies less to Cuba, with its close relations with the New York market, than to most countries, but the Cubans appear to have so distrusted their most experienced men that they preferred to

dispense with their services.

The actual sales mechanism of the Export Agency was essentially the same as that of the Export Corporation for European shipments in 1927-28. Buyers had no option as to the mills from which their sugar would come, but the refineries which were accustomed to importing direct from their own centrals, were allowed to express the wish that the order might be filled from their centrals, and naturally such wishes were in the main met. So far as possible the Agency was to try and maintain uniformity in the proportion of each mill's output sold to date, but as under the Export Corporation, this could not be done strictly without additional expense, and so those producers whose sugar was sold first, were to pay interest to the others: no scheme of equalisation was, however, applied in the case of the unsold stocks of 1928-29 sugar which had been taken over on September I, as it was obviously unnecessary, and could not have resulted in fair treatment all round.

The whole scheme clearly depended on the solution of the problems of financing the mills. This included not only the financing of stocks if such had to be held, but also the ordinary normal financing required to harvest the crop. For the mills were accustomed to finance themselves by loans from the banks and the merchant houses at all stages, against growing cane, against sugar in process, and against actual sugar in warehouse. Under conditions of individual selling the lender could liquidate any sugar left on his hands by the failure of his creditor, and what is more important, he could bring pressure to bear upon his creditor to sell if he suspected the soundness of his creditor's position. With all rights of sale vested in the Co-operative Export Agency, the banks and merchant houses could hardly be expected to lend with the same freedom as before, and for what they did lend, they would probably want much wider margins. The large American concerns and the few large Cuban mills could presumably be left to surmount this difficulty, since they had close connections with the American banks. The real difficulty was with the Cuban-owned mills. Since the 1921 financial crisis, when all the Cuban banks went into liquidation, the ordinary Cuban mills had been financed mainly by the merchants, the mills undertaking to repay the advances required during the growing season by marketing their sugar through the merchant. The

basis of this credit system was really the personal character of the planter. But the establishment of the Export Agency meant that these Cuban mills would no longer be able to undertake to market through the merchant, and therefore they would have to have recourse to the American banks, with which they had no personal relations, and which would obviously charge highly in view of the uncertainty of the time when the mill would receive payments for its sugar, if indeed they were prepared to lend at all for the long periods which these planters would very likely require. Thus the normal financing methods were greatly disarranged by the establishment of the Export Agency. Moreover the Agency would almost certainly require to postpone its sales at times when demand flagged, and if it could carry increased stocks for a period, so as to allow consumption a little more time for expansion, it would obviously be most advantageous. If the world knew that owing to financial difficulties the Agency had to sell at a certain minimum rate, its position as a seller would be greatly prejudiced. Thus there was a double financial problem.* The obvious solution would seem to have been the establishment of a State banking department, financed by the Cuban Treasury, and working hand in hand with the Co-operative Export Agency. But the Cuban Treasury was already strained to the limit of its resources, and since Cuba's foreign borrowing is under the control of Washington, any such help from abroad was out of the question, for Washington would never sanction a foreign loan for the purpose of "gambling in sugar." The only hope lay in the co-operation of the American banks, and all through the autumn the most strenuous efforts were being made to enlist their co-operation.

Mention should also be made of the purely physical problem of holding large stocks. The centrals of the pre-war period were mostly built with sufficient storage space to meet all but the most abnormal requirements. But those built hurriedly during the war had very little, because in those years the sugar could not be shipped out fast enough. During the expansion of 1922–24, shortage of capital in most cases forbade the provision of facilities which with good luck might never be used. Similarly, the ports in the western provinces have always had ample warehouse capacity, but not so the new

^{*} It may also be observed that the Export Agency greatly restricted speculation on the New York terminal market. Normally the speculative public carries 300-400,000 tons of sugar, and additional financing of, say, half this amount now had to come from somewhere. This was, however, a minor difficulty, and one which would, so to speak, have largely solved itself.

ones in Camaguey and Oriente. Considerable additions had perforce been made during 1927–28, when the mills had to hold their sugar under the control of the Export Corporation. In 1929 there were storage facilities in Cuba for about 3 million tons. But it was still very unevenly distributed. While not a difficulty comparable with that of finance, this physical problem of storage might have greatly complicated matters for the Export Agency, and would certainly make the adjustment of returns as between sugar sold at different times, much more difficult than it would have been, if storage facilities had been ample and evenly distributed.

Though, as has already been observed, the mere announcement of the scheme had been sufficient to raise prices very substantially, the Export Agency was unable to make any large sales for two or three months owing to the considerable supplies already in second hands: these holders of actual sugar made very substantial profits at Cuba's expense, though this was, of course, unavoidable. The Export Agency did not, however, try and force further supplies on to the New York market, and until the end of October the price was well maintained. By that time, however, opinion was hardening against the probable success of the scheme, since little progress appeared to have been made in the provision of the necessary financing arrangements. The Wall Street crash and the general fall in the prices of other raw materials also exercised a depressing influence. In November the Export Agency was refusing bids for substantial amounts by European importers, which should certainly have been accepted in the light of subsequent events. But the Agency appears, right from the start, to have made the maintenance of a 2 cent c. and f. New York pricelevel a cardinal principle, and to have obstinately refused bids only a point or two lower. Doubtless the maintenance of this price had a certain psychological importance, but this should not have been allowed to outweigh the practical importance of avoiding any carry-over of old crop sugar. Cuba was not in a position to dictate prices by any rigid principle, and the Agency's slowness to avail itself of every reasonable opportunity to pass on supplies, must be put down either to the failure of the members of the Sales Committee to realise the limitations of the scheme, or simply to their inexperience in the art of marketing. In order to try and dispose of the surplus stocks, grinding was postponed by Presidential Decree until January 15, an action which was all the more necessary that season since bad weather had delayed the ripening of the cane. With the New Year, prices continued to decline even when

the Agency kept out of the market altogether, and as the new crop sugars became available, the Agency took the bold step of offering sugar to American refiners at 2 cents c. and f. with a guarantee that during the period of shipment these terms of sale would remain unaltered. This failed, however, to stimulate any large volume of buying, and at the end of February the Agency repeated its offer with a guarantee against any reduction before March 28. The New York market treated this as a sure sign of defeat, and business came to a complete standstill so far as the Agency was concerned. Relatively small sales were also made to Europe, but at the beginning of March there were 815,000 tons of sugar in Cuban ports and 850,000 tons at the mills, practically all of which was unsold, while every day the mills were adding their peak production of the season. The position of the Cuban-owned mills was becoming desperate. The American mills had not only a stronger financial position in general, but they could borrow from the American The smaller Cuban mills had the greatest difficulty in doing so, and it is significant that the revolt against the scheme was headed by the producers in Santa Clara province, where the Cuban-owned mills are mostly located. By the end of February, the termination of the Agency was being loudly demanded by several leading Cuban newspapers. Eventually internal dissension boiled over, and a general meeting of the mills was called for April 3. Statistics, published by the Agency, showed that up to March 22, 1930, the Agency had sold a total of 913,810 tons, of which 395,405 tons were old-crop sugar, at an average price equivalent to about 1.9 cents c. and f. New York, and 518,405 tons were new-crop sugar at an average equivalent to about 1.75 cents. The actual shipments of new-crop sugar were only about 10 per cent. of the total estimated output to that date. Contrary to expectations, however, the voting went in favour of the retention of the Agency: 12,918 votes in favour and 11,139 against. The Cuban-owned mills voted solidly against the Agency, but a large majority of the American mills voted in favour, even though at the start they had viewed the scheme with very little favour. This complete change of attitude on the part of the two parties is, however, readily understandable. To the Cuban-owned mills the retention of the scheme meant death from cash-starvation, and that right soon: the American mills were able to carry on, and they saw that if they did carry on, the majority of the Cuban mills would be bankrupt within a few weeks, with the result that grinding might

summarily cease, and thereby reduce the current crop, while at any rate the excess supplies would be relieved in the following season. In other words, the American mills saw that the retention of the Agency for a few weeks would remedy the whole situation in the only way in which it could be permanently remedied, namely, by the destruction of the high-cost marginal producers. But the results of this meeting obviously created an impasse: the majority was too small. If the Americans insisted upon the retention of the Agency, the inevitable result would be that the Cuban Government would dissolve it, or, worse still, allow any member to withdraw who wished to do so. An open conflict between American capital and the Cuban Government was the last thing to be desired. Consequently, a further meeting was held on April 14, at which the dissolution of the Agency was duly carried.

Thus ended a scheme which on paper was wholely admirable and full of promise. It failed, and must have failed, in its major object of raising, or at least maintaining, world prices through inability to secure the requisite finance for holding stocks on a large scale. Whether it need have failed quite so dismally to achieve the more limited objectives of preventing weak selling, and of obtaining for Cuba at least some part of the U.S. tariff preference, may be doubted. If the Agency had not held out so rigidly for a certain definite price, in futile effort to achieve what could not

be achieved without substantial financial resources, but had sold off the balance of the old crop at the prices which were, in fact, bid. and had offered attractive prices for future delivery of a certain tonnage of the new crop, the mills might have received sufficient cash to enable them to carry on the harvest. The argument that it was essential to hold up prices in the New York market in order to prevent the threatened increase in the American tariff cannot be allowed much weight. In the first place, during the autumn of 1929 the general opinion, both in the United States and in Cuba, was that that danger was steadily becoming more remote, and that while no reduction could be expected, at least there would be no increase. Secondly, the Agency should have realised that it was jeopardising its very existence, and that if it was dissolved, prices would fall much lower than those which it refused to accept. The great fall in price which accompanied the dissolution of the Agency, was, in fact, the main reason for the ultimate decision to raise the tariff, a matter which will be referred to in the next section. Little excuse can therefore be made on this account, and the only conclusion is that the Agency did not succeed in accomplishing even what it might have done, simply on account of the folly or stupidity of those in charge. Put in more general terms, the failure of the scheme was due to weakness of personnel, on which subject comment has already been made.

XI.—THE PRESENT POSITION AND PROSPECTS.

The termination of the Export Agency was the signal for a fresh decline in prices: the average New York c. and f. price for February and March had been a little over 1.8 cents, and now dropped for April to a little under 1.7 cents. The uncertainty produced by the long-drawnout battle over the U.S. tariff was blamed for further declines in May, which averaged only 1.44 cents. These prices broke all previous records: even in 1902, just before the Brussels Convention, the minimum quotation was 1.56 cents. In the light of subsequent events. however, little blame can be thrown on the U.S. tariff negotiations. As has been said above, during the winter and early spring the general opinion had been that there would be no change in the sugar tariff. But the collapse of the Cuban Export Agency and the apparently endless decline of prices, strengthened the hands of the U.S. domestic producers, and eventually, on June 18, the full duty was

raised from 2.206 cents to 2.50 cents, on the basis of 96 degrees polarisation. Cuban sugar was, of course, still to receive a preference of 20 per cent., and therefore the actual differential was increased from 0.44 cents to 0.50 cents. The benefit of this increased differential, however, is purely potential, for it is impossible for Cuba to obtain it, whatever marketing organisation she might adopt, so long as the present conditions of excess supply continue; on the other hand, Cuba will undoubtedly lose by the stimulus of the higher protection to producers within the tariff wall, while when prices return to a higher level, if not under present conditions, consumption must be affected adversely to some extent, despite the general inelasticity of the American demand.

Neither the large sale of 135,000 tons of Cubas to Russia during the last week of the tariff discussions, nor even the tariff itself, had any effect, however, in arresting the

decline in price. Such large stocks had been accumulated at the U.S. ports in anticipation of the tariff increase that sugar was offered freely without regard to the new higher duty: merchants and speculators made no attempt to derive a positive advantage from the tariff change. Equally American refiners are said to have accumulated considerable stocks in anticipation of an increase in the tariff, and they now began to work off these stocks, reducing their demands for fresh supplies even below their current rate of melting. Hence though the New York price averaged 1.4 cents during June, there was no appreciable business with Cuba. In fact, Cuba was selling very little anywhere. The last mills ceased grinding at the end of June, and the season's production was 4.7 million tons. Stocks at the ports and in the interior then amounted to 3.3 million tons, practically all of which was unsold, while it is quite possible that the interior stocks are somewhat under-recorded. At the beginning of July, some Cuban sellers were evidently forced into the market by a shortage of cash, and some business passed at a little over 1.25 cents, thus registering a further break in the price, which had really taken place, so far as Cuba was concerned, a month previously. Up to the middle of August this general pricelevel was maintained, though with difficulty.

It is clear that the price-level at the moment bears little or no relation to cost of production, nor indeed to consumption. The decline during this summer represents in the main the unwillingness or inability, or both, of merchants and speculators to carry stocks on the scale which is really required. At the end of each month it has seemed impossible for prices to decline further, but each month the impossible has happened, and the holders of stocks have lost heavily, while the margin between the spot price and prices for future delivery has become abnormally large. Merchants and speculators have virtually declined to hold stocks, and this function has been thrown back upon the shoulders of producers. Thus the stocks in the U.S. ports are only some two or three hundred thousand tons above what may be termed a normal level, and invisible stocks are almost certainly negligible. On the other hand, Cuba holds nearly three-quarters of her crop unsold. It is, in fact, most surprising that the mills, especially the Cuban mills, are managing to carry so much of the crop in view of their weak financial position. Presumably they have managed to pledge sugar with the banks for just sufficient to provide their current cash requirements during the grinding season, while all expenditure on cultivation is being reduced

to an even lower minimum than in recent years. How long Cuba can refrain from flooding the market depends on the extent of the carry-over which the banks will allow. Clearly Cuba has got to sell at least 2 million tons before next year begins, and the question is whether refiners will become interested to that extent, or whether pressure to sell on the part of Cuba will cause a further drastic break in prices.

Since refiners are living from hand to mouth, much depends on the rate of consumption. In the U.S., consumption during the first six months of this year is estimated as showing a decline of nearly 150,000 tons as compared with the first half of 1929. statistical consumption of Europe up to the end of May also shows an appreciable decline, for which Germany and Great Britain are mainly responsible. The effects of world depression on purchasing power have certainly not yet been fully developed, and it will be surprising if world consumption reaches within I million tons of the 1929 figure. But it must be remembered that the producer receives demands not directly but through the medium of the refiner. It seems certain that invisible supplies are now very small, and if any development could occur to reassure the market that no further fall in price was likely, refiners and middlemen generally would probably hasten to buy in order to rebuild their stocks with the cheapest sugarever known. For production and consumption are not so far out of equilibrium. If world consumption in 1929-30 had been equal to the previous season, there would have been no maladjustment at all, and the only trouble would have been the 1.8 million tons of stocks over and above the I million tons which may be considered the level of convenience. It is the decline in consumption, and the consequent prospect of a further addition to the already huge carry-over, which has made matters so infinitely worse. It is, of course, too early to speak of the 1930-31 crop, but it is to be feared that any effect of low prices in further reducing crops in Cuba, and other countries producing for the world market, will be at least offset by the effect of higher tariffs in stimulating further production elsewhere. Even with a stationary production, however, any resumption of the normal trend of consumption, together with the rebuilding of invisible stocks, would quickly dispose of 2 million tons surplus stocks. The present crisis is fundamentally a crisis of stock-holding, and not a crisis due to seriously excessive productive capacity, for any further reduction in capacity which is required in Cuba to meet the increased duty-free capacity likely to result from the U.S. tariff, may safely be left to the care of a price-level of $1\frac{1}{4}$ cents. The time seems, in fact, to be approaching when some further experiment in artificial control might produce most beneficial results. Rumours have already begun to spread concerning the formation of stock-holding pools by financial interests. If a pool could be formed to buy up, say, I million tons, and thus satisfy the most urgent cash needs of the Cuban mills, the market might feel it had got sufficient assurance against a further price fall, and refiners and middlemen would then take care of the remaining supplies. The danger to-day is that without some such assurance and encouragement, the demand will continue sluggish, and Cuban sellers, forced to press their supplies on the market, will send the price in a further headlong fall. It may seem incredible that the price can go any lower, but since it now really depends simply on ability to hold stocks, and has little relation to conditions of current production and consumption, there is almost no limit to the potential fall. Doubtless the turn will come before long, but it may be just too long, and if so, the whole national economic life of Cuba will probably be shaken into ruin.

Cuba's position is indeed most critical. Economically Cuba ought to have been brought within the tariff wall of the U.S., which would then have obtained virtually its whole supply of sugar from the island; as well as much other agricultural produce of a semi-tropical character, at much cheaper cost to the American consumer. As things have been, the U.S. has built up during the last twenty years not only a large beet sugar industry, but a still larger cane sugar industry in Hawaii, Porto Rico, and Louisiana. If Cuban sugar entered the U.S. without duty, these industries would rapidly cease to exist, but the more efficient the Cuban sugar industry becomes, the higher will the U.S. tariff be raised. Even if public opinion in the U.S. becomes more hostile to tariff protection in general, the sugar tariff must be maintained at least at a level which will preserve these protected industries on something approaching their present scale, even though further expansion may be stopped. In Cuba, a large body of opinion inclines to the belief that the U.S. tariff is being employed as an economic weapon to force Cuba to acquiesce in annexation by the United States. The truth is that the

United States would be vastly embarrassed by any such development, at least until its sugar requirements have grown sufficiently to take all that Cuba can produce as well as the present. duty-free supplies; and since Cuba can certainly produce enormously more sugar than at present, that time is far distant. But whatever the attitude of the U.S., Cuban nationalism is probably strong enough to defeat any proposal for annexation, however desperate the economic position. As regards the U.S. market, Cuba will continue to supply the balance of its requirements, and since in all probability American opinion is turning against extreme protectionism, there will be little further expansion in duty-free supplies, and accordingly

that balance will steadily grow.

As regards the rest of the world, it seems doubtful whether Europe can materially increase her beet production. In the Far East, Japan, including Formosa, will probably maintain its newly-won independence of Java supplies, and for a time it is clear that Java will have difficulties in disposing of her recently increased production. But a further increase in the Java crop can only come from more intensive cultivation, since there is little more land available so long as the Dutch Government pursues its present policy. If the Philippines gain their independence and their sugar is subject to the U.S. tariff, additional supplies for the Far East will become available from that source, but there will probably be no great expansion for a long time. Other appreciable sources of supply mostly depend for expansion on the maintenance or increase of protection, and there must surely be a limit. Thus the day when Cuba triumphs over the wave of economic nationalism, which has so nearly engulfed her, may not be far distant, for the world's consumption is far from saturation point, quite apart from the results of population growth. Cuba's trouble in the long run is not that the world is ceasing to require her sugar; her real trouble is whether the business of producing this sugar is to pass entirely into the hands of the American capitalist, leaving to the Cuban people merely the rôle of the dogs under the rich man's table. The Cuban sugar industry repays study not only in respect of its recent experiments in economics, but in respect of many other broader and most interesting problems which are embraced by that now somewhat old-fashioned title, political economy.

XII.—THE EFFECTS OF DEPRESSION ON THE AGRICULTURAL SIDE OF THE INDUSTRY AND THE AGRICULTURAL POLICY OF THE CUBAN GOVERNMENT.

Such a title really merits an exhaustive treatment by some person properly equipped for the purpose with a technical knowledge of cane farming, and an intimate acquaintance with even the more remote country districts of Cuba. The present writer has no such qualifications, and offers here only a brief sketch of those features of the situation which have a more direct bearing on the economic and commercial problems with which the above study has been

In the first place, the reader may well ask himself how it is that there has not already been a wholesale abandonment of mills and plantations if the average cost of production, including a return of 5-7 per cent., as has been said in Section V above, cannot be covered under a New York c. and f. price of much less than 3 cents. For the five years 1925–29 the average price has been roughly $2\frac{1}{2}$ cents, and in three of those years there was a substantial restriction of output, involving greatly increased costs per unit of product. In 1929 the average price just reached 2 cents, while for the first six months of 1930 it has been approximately 1.7 cents.* Granted that all profits were sacrificed, it still appears somewhat mysterious that the industry should have been able to carry on without a substantial reduction of capacity. In all, there has probably been a quite appreciable acreage abandoned, but it has mostly been in the form of odd fields here and there: fields which were left uncut during restriction and where the cane had become too dried up: fields which had become so choked with weeds that the undergrowth had to be burnt before the cane could be cut, with the result that weed growth was so stimulated in the following season that the new cane shoots became choked, the cost of such weeding being prohibitive: and new fields which were planted in 1922 and 1923 and have failed to fulfil expectations owing to the unsuitability of the soil. But there have not been cases where mills were unable to grind through lack of sufficient cane supplies, and the decline in the 1930 crop has been due far more to unfavourable weather conditions than reduction of acreage. In the main the growers of cane have so far been able to carry on, as have also the mills themselves.

Briefly the explanation is as follows. Since the mills pay † for most of their cane in

* The corresponding f.o.b. Cuba prices would be at least 0.15 cent less. † Administration cane (i.e. cane grown by the mills themselves) does not amount to more than about 15 per cent. of the

proportion to the average price which they obtain for the sugar, the cane farmers (colonos) have received less than an "economic" price for their cane. In addition, since the centrals, particularly the Cuban-owned centrals, have not been able to borrow to the usual extent, they have cut down the scale of their customary advances to their colonos during the growing The colono has been hit in both these ways, and the need to reduce his wage bill, owing to shortage of cash, has prevented any recourse to more intensive methods of cultivation as a means of salvation. He has therefore had to take the other alternative, and cultivate more extensively by reducing his expenditure on weeding, etc., and more cheaply by reducing rates of wages for such labour as he does employ. Everywhere weeding has been cut down to a minimum, and except in a few districts where the resident labour has some alternative employment, wage rates have been cut by half or even more. This cutting of wage rates is sedulously denied, for any admission would be used by the U.S. domestic producers as a weapon in their campaign for a high tariff protection, but there is no doubt whatever that the customary wage rates now exist only on paper. In 1929 field-workers were lucky if they got 40 cents a day instead of one dollar, and many mills were not paying more than 20 cents. Moreover, the result of reduced weeding is that the work of cutting the cane is far more arduous, and any given piece-work rate yields much less than it would under proper conditions of cultivation. Thus the colono has in these two ways reduced his costs of production enormously, but even so, few of them have been able to make more than a bare living. The chief victim of cheap sugar has been the Cuban labourer, for even at starvation wages many have not been able to obtain reasonably continuous employment. Conditions in the country districts were terrible towards the end of the growing season of the present crop (i.e. in the autumn of 1929): what they will be like this autumn beggars

imagination. The consequences in the immediate future are, of course, the main interest from the commercial point of view. Is the present reduction of costs entirely at the expense of efficient production, including in that term the customary standard of living of the Cuban agricultural worker, and therefore only temporary, or is it that the present distress is likely to stimulate greater efficiency in the long run? The answer is still extremely problematical, but there can be no doubt that radical changes in the organisation of the industry have already become noticeable: the doubtful issue is whether these developments will lead to any considerably greater efficiency. These changes centre round the colono himself. As has been explained in Section IV, the American mills favoured the large-scale colono, and especially in the days before the war his was both a pleasant and a profitable existence. Some few of them were extremely skilful specialists in cane farming, and were most usefully employed on the older lands of the western half of the island, where the fertility of the soil and the prevalence of disease gave real scope to specialist knowledge. But many of them were incapable as farmers, and particularly on the new fertile lands of the east, the large colono was a mere parasite on the industry. These large colonos have been rapidly disappearing in recent years: the Americans now know enough about the agricultural side of the industry to recognise inefficient supervision when they meet it, and if the incapable colono has not decamped with as much as he can borrow (which occurrence has been so frequent that the bad debts on this account in the books of some mills are conspicuous), the central has refused to renew his tenure of their land, or in some way outed him. But the American mills have always desired to control the production of their cane supplies, and though bitter experience has convinced them that administration cane can rarely be produced as cheaply as it can be bought, that has not reconciled them entirely to the colono system with its tiresome accompaniments of perpetual loans which may not be recoverable for years, and only then if still more money is loaned to the debtor. The result of six years of depression has been that even the capable colonos are almost hopelessly indebted to the mills, and therefore it is becoming more and more common to reduce these colonos to the position of sub-managers, paid a small salary but dependent beyond that on the results they produce. The central thus obtains a greater measure of control, and knows how its money is spent, even if it is adding to its risks. Such manager-colonos must account for every penny, and the central's agricultural specialists must approve of all capital improvement or development schemes. The central finds all the machinery and transport, and arranges its colonias so as to take advantage of every development of technical progress. Ten years ago the line of development might have been a slow extension of ordinary administration cane. But the great importance of small overhead costs on the agricultural side and the

lowest possible prime costs have been vividly demonstrated during the last few years. The system of administration cane as ordinarily understood, involves a heavy fixed charge for supervision by salaried American employees, and lacks the elasticity which is obtained when all but a small part of this charge depends upon results. This is one great advantage of the new system of colono managers, and it seems probable both that it will now extend widely, and that it would not have done so but for these years of depression. Whether in the long run it will be as cheap as the old large colono system remains to be seen, but at least it seems highly probable. Now that mill efficiency has been so highly developed, the American managers are free to give more attention to the agricultural side of the industry, and under the new system of submanager colonos experiments can be freely made, and improvements and discoveries can be instantly applied throughout the central's cane area, without encountering resistance from conservative individuals, as would have happened with the old system. The new system appears to possess all, or nearly all, the advantages of the old, but without its main drawbacks.

The old large colono system has therefore been shaken to its foundations. But at the same time these years of depression have seen a remarkable growth in the number of smallholders who grow a few acres of cane as an adjunct to a simple kind of subsistence farming. These men cannot truly be termed peasant proprietors, for they rarely own their land, which in most cases is leased from the centrals or some large landowner, but they have considerable security of tenure in practice. The smallholdings are entirely family affairs: each has a little thatched cottage, a relatively large garden, cows, pigs, chickens, perhaps some orange trees, and always a grove of banana trees to provide their staff of life. In addition they grow 60-120 acres of cane, on which they rely to produce cash for clothing and to cover the expense of sending the children to school. The larger holdings will require some assistance at harvest-time, but otherwise the labour of the family suffices, this labour, of course, being expended without reserve from daylight to dusk. These small-holders are reasonably content with 2 cent sugar, and prepared to go on producing cane at that price-level until it rises, when they expect to make their fortunes. For practical purposes their costs of production may be said to be nothing, for they could probably eke out an existence of a sort without their cane, while they cannot lose on it whatever the price, since almost the whole cost of production is their own labour. Their standard of cultivation is high, and though they cannot obtain all the advantages of large-scale methods, the economy of mechanical ploughing is being secured in some cases by four or five such small-holdings dispensing with hedges so that tractor-drawn ploughs, supplied by the centrals, can proceed right across the combined area. Alternatively the same end may in the future be secured by co-operative organisation. Mechnical ploughing is by far the biggest economy of large-scale cane farming, and the remaining economies may well prove to be balanced by the many advan-

tages of a peasant proprietor system.

Probably there would have been some extension of this system under normal conditions, but these years of depression have resulted in such difficulties to the wage-earning field-worker that the more enterprising have been stimulated to take the plunge and start on their own, while difficulties with their colonos have made many centrals sympathetic towards an extension of this movement. Moreover, the Cuban Government has had to face a growing volume of unemployment in the towns, and the problem of intermittent employment in the country, since the large colonos have restricted their expenditure on cultivation; in addition there is a serious amount of unemployment due to the introduction of mechanical power, and this will certainly increase, for there will probably be little expansion of cane area for some time, and there are few other industries which are likely to require additional labour. Accordingly, the Cuban Government welcomes the growth of these small-holdings in the belief that they can compete with the large-scale methods of the Americans. These small-holdings will absorb the surplus of country-bred workers, and the way will then be open for the unemployed in the towns to obtain employment as drivers of tractors, mechanics and so on, at which jobs they may well be found efficient, and even more efficient than the slower-witted, less educated

agricultural labourers. The agricultural policy of the Cuban Government is based on the desire to extend this small-holdings movement until the agricultural side of the sugar industry, if not the manufacturing side, has been restored into Cuban hands. Unfortunately the Cuban Government is powerless to help where help is most needed, namely, in the provision of long-term credit. But the movement is at least not being hindered by the Government. Whether these small-holders can compete with the new large-scale production of the American type, depends very largely on the progress of invention. So far, mechanical ploughing is the great advantage of large-scale production, and, as has been said, it is not impossible for the small-holder to avail himself of it, at any rate up to a point. Mechanical transport from the field to the railway siding still wages a fierce competition with the ox-cart, for the oxen feed on the cane tops during the harvest, and since that coincides with the dry season, there is plenty of rough grazing for the rest of the year. The great field for invention is in the actual cutting of the cane, but while experiments are continuous, the varying length of the canes * and the tangled mass of a cane-field, even when no unusual wind has been experienced, present most difficult problems to the inventor. No one can be sure that the requisite invention will not be made to-morrow, and it might be of such a kind as to place the small-holder at a great disadvantage. But for the present the smallholding system of cane-growing seems likely to spread, and it may be that the issue will remain undecided—large-scale methods in the wide lands of Eastern Cuba, and small-holdings in the west, each existing side by side and equally efficient in their different physical surroundings.

^{*} The cane has not only to be cut at the bottom, but also the top joints have to be cut off at exactly the right spot: if too low, some cane with a satisfactory sugar content is lost, while if too high, valueless cane has to be transported and milled.

APPENDIX.—STATISTICAL TABLES.

Note.—The following tables present only such statistics as are specially relevant to the present study. The figures are mostly taken from Czarnikow's weekly reports and Farr's Manual of Sugar Companies, and the original source is usually Willett and Gray, or F. O. Licht.

TABLE I.
WORLD'S SUGAR PRODUCTION.

Crop Year.	Total World. (Million tons.)	Cuban Crop.	European Beet Crop. (Million tons.)
1914–15 1915–16 1916–17 1917–18 1918–19 1919–20 1920–21 1921–22 1922–23 1923–24 1924–25 1925–26 1926–27 1927–28 1928–29	18·5 16·9 17·1 17·4 15·8 15·5 16·6 17·6 18·4 20·1 23·7 24·6 23·7 25·3 27·1 26·8	2·6 3·0 3·4 4·0 3·7 3·9 4·0 5·1 4·9 4·0 5·2 4·7	7.6* 5.5 5.3 2.6 7.0 4.6 5.1 7.4 6.0 8.5 8.4

^{*} In 1913-14 the European beet crop amounted to nearly 8 million tons, and had been 8.3 million tons in 1912-13, the record year.

TABLE II.
SUGAR PRODUCTION UNDER THE PROTECTION
OF THE U.S. TARIFF.

(Thousand	tons.	١
Lindasana	norra.	,

	Beet Sugar.	Louisiana Cane Sugar.	Hawaii.	Philip- pines.	Porto Rico.	Total.
1919–20 1920–21 1921–22 1922–23 1923–24 1924–25 1925–26 1926–27 1927–28 1928–29 1929–30	653 969 911 616 787 974 804 801 965 939 909	108 151 290 263 145 79 124 42 63 118	508 504 502 479 626 692 705 724 807 830 815	209 255 338 263 372 581 437 584 622 700 750	434 438 362 338 400 590 541 563 671 531 747	1,912 2,317 2,403 1,959 2,330 2,916 2,611 2,714 3,128 3,118 3,399

TABLE III.

SUGAR PRODUCTION OF THE REST OF THE WORLD AFTER DEDUCTING THE CROPS OF CUBA, JAVA, EUROPE AND THE U.S. DUTY-FREE CROPS.

	(Million tons.)
1919-20	 6.0
1920-21	 5·2 5·6
1921–22 1922–23	 5·6 6·5
1923-24	 6.8
1924–25 1925–26	6·6 7·4
1925-26	7-5
1927-28	7.9
1928-29 1929-30	7·6 7·4
1323~30	•

TABLE IV.
WORLD PRODUCTION, CONSUMPTION AND CARRY-OVER.
(Million tons.)

	1920-21.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.	1929-30
Stock carried over on Sept. 1 Production	1.6 16.6	2·4 17·6	1·2 18·4	1·3 20·1	1·0 23·7	1·6 24·6	2·6 23·7	2·4 25·3	2·5 27·1	2·8 26·8
Total Supplies Deduct Stock carried over at	18-2	20-0	19.6	21.4	24.7	26-2	26.3	27.7	29-6	29-6
end of season	2.4	1.2	1.3	1.0	1.6	2.6	2.4	2.5	2.8	4.3*
Consumption	15-8	18-8	18-3	20.4	23.1	23.6	23.9	25.2	26-8	25.4

^{*} Provisional.

TABLE V.

DISTRIBUTION OF VISIBLE SUPPLIES.

Note.—From January 1, 1925, the European figure includes Poland. From July 1926 the Cuban figure includes stocks in the interior and not merely at the ports. These changes affect the comparability of the series, though interior stocks in Cuba were probably negligible except for the few months preceding their inclusion.

(900 tons.)

		design to a service of the service o	Three of the date of the work throw the second	Towns Towns Commission Commission	
(Beginr	ning of Month.)	In Europe.	In United States Ports.	In Cuba.	Total.
1922 1923 1924	Jan. April July Oct. Jan. April July Oct. July Oct. Jan. April July Oct. Jan. April July Oct.	1,872 1,327 848 424 2,376 1,632 1,251 440 2,206 1,633 1,106 239	45 222 193 128 12 215 164 110 27 167 192	844 930 862 316 45 654 590 241 22 660 788 227	2,761 2,479 1,903 868 2,433 2,501 2,005 791 2,255 2,460 2,086 542
1925 1926 1927 1928 1929 1930	Jan. April July Oct. Jan. April July Sept. Sept.*	3,036 2,073 1,261 439 3,742 2,964 1,850 642 3,380 2,489 1,620 461 3,591 2,729 1,640 418 3,955 3,200 1,834 4,342 3,452 2,144 1,560 1,083	32 128 277 135 76 208 377 216 181 219 259 183 179 315 544 343 159 418 673 926 769 578 666 463 463	42 860 1,095 594 132 1,193 2,325 1,061 82 1,324 2,211 1,136 292 2,398 2,119 1,089 1,57 2,572 2,292 1,014 362 2,998 2,704	3,110 3,061 2,633 1,168 3,950 4,361 4,552 1,919 3,643 4,090 1,780 4,092 5,442 4,303 1,850 4,271 6,190 4,799 2,530 5,473 6,982 6,156 6,156 6,156 1,250

TABLE VI.
UNITED STATES SUGAR CONSUMPTION,* TOTAL
AND PER CAPITA.

Year.	Total (000 tons).	Per Capita. (lbs).
1914	3,761 3,801 3,659 3,684 3,496 4,068 4,068 4,107 5,093 4,781 4,854 5,510 5,671 5,297 5,543 5,811	84·29 83·83 79·34 78·58 73·36 85·43 86·56 84·47 103·18 95·63 95·90 107·50 109·30 100·95 104·27 108·13

^{*} Statistical Consumption (Refined Value), not of course physical consumption, of which no records are available.

TABLE VII. PROPORTION OF CUBAN CROPS EXPORTED TO UNITED STATES.

	Per cent.
Aver. 1909–13	94
1921 1922 1923 1924 1925 1926 1927 1928	56 86 99 72 67 78 72 72 76

TABLE VIII.

AVERAGE MONTHLY AND ANNUAL PRICE OF RAW SUGAR c. & F. NEW YORK IN CENTS PER LB.

	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.	1929.	1930.
Jan. Feb. March April May June July Aug. Sept. Oct. Nov. Dec.	6·28 6·28 6·28 6·28 6·28 6·28 6·28 6·28	11-91 10-47 11-12 16-11 20-42 18-39 16-43 13-54 9-20 7-39 5-60 4-15	4·11 4·47 5·14 4·51 3·87 2·96 2·85 3·08 2·60 2·51 2·26 2·01	2.03 2.11 2.31 2.40 2.46 3.00 3.51 3.58 3.24 3.69 3.83 3.90	3-92(?) 4-52 5-75 6-02 6-21 5-80 5-36 4-26 5-17 5-79 5-43 5-52	4·85 5·48 5·15 4·57 3·83 3·43 3·33 3·57 4·18 4·24 4·07 3·41	2.83 2.86 2.98 2.71 2.56 2.63 2.49 2.59 2.44 2.07 2.30 2.34	2·39 2·45 2·26 2·35 2·41 2·36 2·38 2·47 2·68 2·80 2·93 3·31	3·25 3·14 3·01 2·99 3·05 2·85 2·75 2·75 3·02 2·89 2·89 2·92	2·72 2·48 2·74 2·66 2·68 2·52 2·41 2·38 2·22 2·14 2·09 2·16	2·03 1·96 1·94 1·87 1·81 1·75 2·10 2·05 2·22 2·23 1·97 2·00	1.97 1.81 1.84 1.69 1.44 1.41 1.26 1.19
Yearly Average	6-65	12.06	3.36	3.01	5.28	4-18	2.57	2-57	2-95	2.43	2.00	

^{*} Provisional.



PART II.

THE MARKETING OF JAVA SUGAR IN RECENT YEARS

INTRODUCTION.

THE Java sugar industry has often been held up to other industries in other L countries as a model of corporate organisation, and no part of that organisation has received so much laudation, or so many envious glances, as that which deals with the marketing of the sugar. The fact that Java has until recently been able to view with comparative equanimity prices which were driving most sugar producers to appeal frantically to their Governments for increased protection or higher bounties, or, as in the case of Cuba, to try restrictionist expedients, has often been credited to the efficient and orderly marketing of the "Vereenigde Javasuiker Producenten," "United Tava Sugar Producers Association." commonly known as the V.J.P., by which initial letters it will be referred to below. How far such a generalisation is true is another matter, but there is no doubt that the V.J.P. has played a most important part in the recent history of the industry, or that the Co-operative Export

Agency established by Cuba in 1929-30 was in no small degree inspired by and to some extent modelled upon it. Though Cuba's attempt was completely unsuccessful, it is quite possible that the project will be revived, while other raw material industries have been and probably will continue dallying * with the general idea. Dutch rubber producers, for example, have long felt that they should try to follow in the footsteps of their sugar brethren, as public opinion in Holland and Java is constantly telling them to do. A brief study of the organisation of the V.J.P., and of its actual operations in recent years, may therefore form a useful appendix to a study of the recent experiments in conscious control which Cuba has been making with sugar, and other countries with other commodities.

I.—THE ESTABLISHMENT AND CONSTITUTION OF THE V.J.P.

The V.J.P. started its career in a most informal and almost fortuitous way. It was not, as might well be imagined and as has often been true in other cases, the culmination of years of patient organisation directed to that end: on the contrary, it may well be doubted whether it would yet be in existence but for the chance reactions of the European War in the Far East. In 1917 the shipping shortage had resulted in a considerable accumulation of stocks in Java, and the mills were hard put to it to obtain their current requirements of cash. Competitive selling by the mills was driving down prices, though the world was short of sugar and the New York price rising by leaps

An informal committee of and bounds. bankers undertook therefore to regulate the sale of a large proportion of the crop, and to finance any balance which could not be disposed of without depressing prices to an unreasonable extent. In 1918, as conditions were equally difficult, it seemed desirable to continue the same sort of arrangement, and the V. J.P. was formally constituted. The membership was open to all sugar companies with headquarters in Holland and mills in Java. The membership contract was for the single year 1918, and it has continued to be only an annual contract down to the present day. The V.J.P. started with a membership of rather more than 80 per cent.

^{*} The Wheat Pools, the Copper Combine and other similar organisations are examples of centralised marketing, but they are different in very many respects from the V.J.P., as will be seen.

of the industry, and this was quickly increased to 90 per cent. An annual meeting is held in Holland at which the members elect a Committee of Management, consisting of about 36 representatives, voting being by acreage under sugar cultivation. The Committee of Management delegates the actual business of selling to a sub-committee of three, and only broad questions of selling policy are ever brought before the full committee. It is this Triumvirate which constitutes the V.J.P. for practical purposes. The Triumvirate appoint the Java managers of their respective firms to be the representatives of the V.J.P. in Java, and they carry out the actual work of selling according to detailed, and not merely general, instructions from Holland. They also manage the internal affairs of the association, e.g. the allotment of contracts and the equalisation of proceeds (to which matters further attention will shortly be given), and for this they can refer to a local Committee of Assistance" composed of the representatives of the sugar companies in Java. This Committee of Assistance is therefore in a way a counterpart of the Committee of Management in Holland, but, unlike the latter, it has not even a theoretical claim to any voice in the determination of prices or selling policy.

At first sight it is one of the most extraordinary features of the organisation that the heads of the same three firms have always composed the ruling Triumvirate. The explanation lies in the degree of combination which has been reached within the industry under the leadership of the big banking-trading concerns. These have gradually absorbed or obtained control of one mill after another. In the main this has come about through the execution of mortgages: in periods of depression the mills borrow from the banks on mortgage, and if the loan cannot be paid back at the appointed time, the banks execute the mortgage and take over the mill. The process of concentration has therefore been in the main involuntary on the part of the original owners: it first appeared on a significant scale in the crisis of 1883, and has been a marked feature of every period of serious depression ever since. The absorption of mills by the banks is indeed a very good index of the real severity of any depression. In addition, however, the banks have made direct investments in sugar mills on their own initiative, but this is a much less important cause of the concentration. As well as the banks, some of the larger merchant firms have come to control a number of concerns, which, having borrowed, found themselves unable to repay. The result is that in recent years seven concerns, with over 100 mills between them, have come to control

no less than 75 per cent. of the industry, and the remaining 25 per cent. is by no means composed of single-mill proprietors. But these seven concerns are of very unequal size. The Triumvirate is composed of the three biggest, namely—

 The Nederlandsche Handel Maatschappij, which controls 25 mills, of which it owns at least 7 outright.

at least 7 outright.

2. The N.V. Handelsvereeniging "Amsterdam," which also controls 25 mills, of which it owns at least 14 outright.

3. The N.V. Ned.-Indische Landbouw Maatschappij, which controls 23 mills, of which it owns at least 8 outright.

These three concerns therefore control 73 out of the total of 178 mills in 1928, and since on the average their mills are larger than the average of the remainder, they may probably be said to control very nearly, if not quite, 50 per cent. of the output of Java sugar. Since approximately 10 per cent. of the total crop is produced by mills which are not members of the V.J.P., it is clear that the Triumvirate maintains itself unchanged simply because it controls well over half the voting power of the Association, and as long as the three agree to keep each other in office, nothing can disturb their tenure. It is this exceedingly solid backbone which is really the making of the organisation. At the same time, it must not be forgotten that any member can withdraw as soon as his current crop is sold, and that the control of the Triumvirate within the Association would avail them little if its membership substantially declined: even go per cent. is not too high a proportion to give adequate control of the market. Moreover, if it offends some of the existing members, the Triumvirate has small hopes of recruiting any substantial proportion of the present nonassociated output. The most important nonassociated firms are the Oei Tiong Ham Suikerfabrieken, owning five mills, and the three mills of the Lie Djeng Han. The former of these Chinese firms is really part of a big Chinese merchant firm, and therefore naturally preserves its freedom, while the latter is a real family concern determined to remain completely independent. Of the remaining eight non-associated mills, some might be recruited, though they have not shown much willingness so far, but several are really under the control of English and Dutch merchant firms, and are consequently most unlikely to join. position therefore is that the V.J.P. is never likely to increase its control much beyond 90 per cent., unless some of the members get the chance of buying up the outside mills.

The headquarters of the V.J.P. are, as has been said, in Holland, and the managers of the Triumvirate in Java work to orders as regards the price at which they may make sales. Exporters and merchants make bids to the V. J.P. office in Sourabaya, and these bids are usually neither accepted nor rejected until the following day. This gives the Java office time to refer to Holland. Probably the Java office is empowered by Holland to make sales up to a certain quantity within certain limits of price, or at a particular price, and reference to Holland is thereby obviated for many transactions, but it seems that the margin for initiative by the Java office is normally quite small. Reference is often made in market reports to the Trust's * "limit," but this merely means that when a transaction has been made, the Trust is assumed to be willing to make further sales at that price until it refuses to do so or another transaction has been made at a different price: hence if brokers' bids at a lower price are refused, the Trust is often said to be "maintaining its limit," or some similar phrase is used. But no one knows what orders the Java committee receives from Holland, and the fact that a certain price has been accepted to-day, does not necessarily mean that it will be accepted tomorrow. On very few occasions only has the Trust taken the initiative and announced a definite price. In practice when an exporter suspects that fresh instructions have been sent from Holland, he arranges with some small Chinese firm to bid for 300 tons, which is the Trust's minimum transaction, or a little more, and a succession of such bids soon reveals what change, if any, has been made. The problem is solved through the Chinese because the large exporter is usually unwilling to let the Trust know that it is "in the market," and since the large exporters have their own special broker, if he made a bid, the Trust would be fairly certain as to his principal. No big exporter would bother to buy as little as 300 tons, except for the purpose of finding out the Trust's price, preparatory to putting in a large order, and the Trust, with the game revealed, might alter its price again, whereas if a small Chinese firm makes such a bid, the Trust may suspect, but it cannot be sure, that the bidder does not genuinely require sugar. Since the Trust stipulates for twenty-four hours' grace to accept or reject bids, it follows that bids made on the same day at the same price are either all accepted

or all rejected: any discrimination would clearly make things impossible from the buyers point of view. But for the following day the Trust may alter its limit if it wishes: hence buying comes usually in spurts. For weeks the Trust may have been refusing bids, and then orders come from Holland to lower the limit, and bids at a certain price are accepted: buyers who after these weeks of market inactivity may have become keen to satisfy some of their requirements at this lower price, rush in to make their bids before the Trust raises its limit again. Conversely, if the Trust has been seeking better prices, and eventually accepts a bid at a higher price than its last transaction, buyers may decide to rush in before the Trust shall raise its limit still higher. Thus for weeks there may be insignificant dealings of a few hundred tons, mostly to test the Trust's limit, and then on one day business involving several hundred thousand tons may be transacted, after which the market will again quickly lapse into its former dormant condition. A variable volume of trading is, of course, a feature of all organised markets, but it is specially marked in this Java sugar market. As regards the non-associated firms, their constant endeavour is to steal a march on the Trust: the Trust undoubtedly sets the general level of prices on the supply side, but with so many consuming markets differing so widely as India, China and Japan, to mention only the chief, there is, of course, ample scope for a difference of ideas between the Trust and the big exporters, and when this lasts for a considerable time, there is plenty of scope for shrewd marketing by the non-associated firms, just as there is for dealers in the "secondhand" market. The last named is so called because its main business is the transference of sale contracts made by the Trust, or their division amongst a number of parties: it also effects the distribution of sugar for home consumption, which amounts to nearly 300,000 tons. There is normally, of course, a good deal of speculative trading in this second-hand market, particularly amongst the Chinese traders, but while the V.J.P. has necessarily to keep a careful watch on the prices thus registered, it cannot be said that the speculation which takes place has any material influence on the general price-level. In the main, it is simply gambling by individuals on the future price quotations of the Trust, rather than speculation with any real directive function.

The price quotations are usually on the so-called "first-cost" basis, that is, delivery in front of the buyer's scales at a port warehouse.

^{*} The V.J.P. is commonly referred to in Java by the merchant community as "The Trust," though it really hardly merits the implication of monopolistic control except to a very limited degree.

This normally means that the sugar is shipped from the mill to the buyer's warehouse at the port at which the V.J.P. has announced that delivery will be given. The buyer cannot stipulate the port at which delivery is to be made, and he may get delivery of a large order partly at one port and partly at others: he has simply to rely on the V.J.P. to give him a fair proportion of his total orders at the most convenient ports. Neither can the buyer stipulate the mill from which his sugar shall come unless he pays a premium of 25 cents per 100 kilos, which is virtually prohibitive: again he has to rely on the V.J.P. to give him a fair proportion from the mills producing the best product. In practice, buyers often indicate informally the port at which, and less frequently the mills from which, they would prefer delivery to be made, and, especially in the case of the larger buyers, the V.J.P. will naturally try to satisfy their desires. There seems, in fact, to be little or no dissatisfaction amongst the larger regular customers of the V.J.P. at the handling of what might seem to be somewhat difficult and touchy questions, though doubtless the occasional purchaser of relatively small amounts often rages impotently at what he considers very unfair treatment. But on this matter of delivery, some of the largest regular buyers have recently had a new cause for complaint. It used to be almost unknown for unsold sugar to be stored at the ports, but during the last two or three seasons, sales by the V.J.P. have lagged behind the rate of actual production, and since the mills have rarely got much storage space, the sugar has had to be sent to the ports, and stored there in the warehouses of the Triumvirate * and other members of the V.J.P., and when sold, delivery was given ex these warehouses, i.e. the buyer had, so to speak, to bring his scales to the door of the seller's warehouse. Now some of the big exporting firms, because they are regular dealers in sugar on a large scale, have their own warehouses at the chief ports, and where delivery was given of sugar already stored, they have had either the extra expense of moving the sugar to their own warehouses, or the vexation of paying warehouse charges to another while their own warehouse, perhaps next door, stood empty. The members of the V.J.P. realise well enough that such firms have in this matter a real grievance, and they do not wish to exploit it for their own profit. But the storage of unsold sugar was virtually unknown until three years ago, and in the absence of storage facilities at the mills there was no alternative, while they could not stomach

* A great many of the big port warehouses belong to the H.V.A.

the idea of paying for the transference of the sugar to the buyer's warehouse when they had already had the expense of storing it prior to the sale. Many mills have recently been expanding their storage accommodation, but it takes several years before an asphalt or concrete floor ceases to "sweat" in the climate of the Java plains, and there has incidentally been a good deal of damaged sugar about recently. This grievance of the merchants is therefore on the way to being relieved, and under normal market conditions it is most unlikely to appear, for the policy of the V. J. P. has always been to sell all sugar before it is made.

Orders are usually accepted by the V.J.P. for delivery within a period of two consecutive months, and within this period are executed in chronological order. The buyer is informed usually about one month beforehand the names of the mills which will supply his sugar, and that means also, for practical purposes, the port or ports at which delivery will be given, since each mill normally ships to one particular port. Details are then arranged between the buyer and the mill, or the mill's agent at the port. The buyer pays the mill or mills direct, though, as will be seen in a moment, the V.I.P. really receives the money. Payment must be made in full on delivery: the V.J.P. also stipulate, in the case of a buyer whose credit is not well established by long-standing regular custom, that security to their satisfaction shall be deposited within fourteen days after the closing of the contract. The V. J.P. makes no bad debts, and this is one of its considerable advantages as a marketing organisation, for bad debts by small buyers used to be an appreciable source of loss to the mills.

In theory every mill has a proportionate share in every sale contract. But since the mills produce different kinds and qualities of sugar, and since some orders are quite small, while it is desirable in other cases to meet the wish of the buyer for delivery from a certain mill or at a certain port, this is, of course, a practical impossibility. The V.J.P. does roughly apportion its sales pro rata among the mills supplying the same type of sugar, but this is mainly for convenience of working, since very few mills have had any considerable storage capacity, at any rate until quite lately. Equalisation is really effected by an approximate monthly settlement according to the "crystal" content of each lot of sugar delivered by the mills to the order of the V.J.P., with a final settlement at the end of the calendar year following the crop year. Samples are taken of each consignment, and the crystal content determined both by the mill and by an independent analyst on the part of the V.J.P. Every month the V.J.P. works out the average price obtained per unit of crystal content, and the value of the sugars sold by each mill on this basis. The mills, as has been said, are paid direct by the buyers, and at the end of the month each mill receives from, or pays to, the V.J.P. the difference between the sum actually paid and the value of the crystal content of the sugar which they have sold, at the average price per unit of crystal content as calculated by the V.J.P.: the V.J.P. thus acts as a clearing-house, and each mill receives the average price obtained for the crystal content of all sugar sold to date by the V.J.P. In order to stimulate the production of high-grade sugars,

however, a mill, whose sugar shows a certain margin above the average crystal content, receives a bonus; this provides a very substantial addition to the income of some mills, for while their costs for chemical supervision are probably somewhat increased, in the main a high crystal content means regular and assiduous, as much as more highly skilled, care. The final receipts of the mills are subject to a levy on tonnage sold in order to provide for the expenses of the V.J.P., but since that organisation has no capital charges to meet, and since neither the committee of management, nor even the triumvirate, receive salaries, this levy is almost insignificantly small.

III.—THE FIRST TEN YEARS OF THE V.J.P.

The constitution and general marketing machinery of the V.J.P. has now been outlined, and it becomes possible to consider the part which it has actually played during recent years. A brief outline of the course of events since the pre-war period is, however, necessary for a proper understanding of more recent history. In 1913 Java succeeded for the first time in producing a crop of 1½ million tons.* In 1914 and 1915 there was no reduction of acreage. though production was slightly less, but in 1916, with the rising price of sugar, there was a further expansion of acreage, and in 1917, and again in 1918, production was approximately 1.8 million tons. The difficulties which then led to the establishment of the V.I.P. were not caused by any real excess of supplies, but simply, as has been already said, by the shortage of shipping in the Far East. These difficulties, and the resulting lower price-level, caused a sharp contraction of acreage for the 1919 crop, which amounted to only 1.3 million tons. must be remembered that there is no ratoonage in Java: the crop is from entirely new plantings made the year before, and the resulting greater elasticity, as compared with Cuba, where the actual plants are left undisturbed and the cane shoots up again year after year, enables Java to regulate her production to the prospects of demand and prices to an extent which is impossible where ratoonage is practised, though, of course, the latter may have advantages in respect of costs. The dispersal of the accumulated stocks of sugar during the early part of

1919 and the steady rise in prices came too late to stimulate much larger plantings for the 1920 crop, which amounted to only 1.5 million tons. But an average price during 1920 of F. 54 per 100 kg. † of crystal content meant wealth beyond dreams to Java, and if the Dutch did not talk about the "dance of the millions," that must be attributed only to the very considerable difference in their national temperament as compared with the Cubans! The policy of selling a substantial part of the crop in advance, probably saved Java from the worst of the ensuing slump, and gave more time for the re-adjustment of costs. At any rate opinion as to the future was sufficiently optimistic to prevent any decline in plantings, and in 1922, and again in 1923, the crop amounted to 1.8 million tons, while in 1924 it reached the 2-million mark, and passed it by 300,000 tons in 1925. In 1926 the acreage was no greater, and bad weather reduced the crop below 2 million tons.

In dealing with these crops from 1918–26, and indeed with the subsequent crops also, the V.J.P. cannot be said to have pursued any definite policy: its aim has always been simply to sell all the sugar its members produce as quickly as possible and to the best advantage under the current conditions. It has never attempted to secure restriction of output by the mills, nor any measures of valorisation, or of price stabilisation, except over quite short periods. It has in general altered its acceptance prices only when market conditions have so changed as to require a substantial alteration: speculation has been confined to the second-hand market, and there only are to be found the

^{*} Harvesting in Java begins in May, the cane having been planted in March, April and May of the year before. The crop year is reckoned from May 1 to April 30. In international statistics the Java crop is reckoned in the season beginning September 1 of the calendar year in which the crop is harvested, i.e. the Java crop of 1930 is reckoned in the world crop season September 1, 1930–31.

[†] The par of exchange is £1 = F. 12·107, i.e. one florin equals approximately one shilling and eightpence. 100 kg. = 1 quintal = 220 lbs. avoird@pois approximately.

daily and hourly changes which are characteristic of ordinary commodity markets. extent the V.J.P. has achieved a certain measure of price stabilisation, but it cannot be said to have attempted any real control over the general price-level, at any rate until 1927. For such control must involve either a regulated output or the manipulation of stocks, and neither was attempted. As regards the latter, the Java mills have always tried to sell forward a substantial proportion of their output, and the V.J.P. continued this practice. Stock-holding has always been, and still is, regarded by the Java mills as no part of their proper functions as producers: stock-holding means risk-taking, and in their view this is a function of the merchants, the producer taking quite enough risks as an agriculturist. The mills had no adequate storage capacity, and neither the desire nor the financial means to hold back supplies, nor had the V.I.P. Hence the practice was to sell as much as possible well forward, and to sell the remainder of the crop at whatever price concessions were necessary to prevent any real accumulation of stocks. The V.J.P. naturally endeavoured to choose the right moment to sell within the general period set by these limitations, but it deemed it outside its functions to wait beyond a certain time for prices to improve. It cannot be too strongly emphasised that the V. J.P. is simply and solely a centralised marketing agency, and in no sense does it possess or exercise the powers of a monopolistic producer. Until 1928 no attempt was even made to secure differential prices in Java's special markets. That its leaders were not tempted to try the strength of the potential monopolistic powers of the V.J.P., but were content to operate as a marketing agency pure and simple, very largely accounts for the success of the organisation, and the confidence and loyalty which it gained among its members during the first ten years of its existence. But it would be idle to deny that the V.J.P. was operating under relatively favourable and easy conditions until the last three or four years; for the costs of production in nearly all the mills were, except perhaps in 1922, comfortably below selling prices. The General Syndicate of Sugar Manufacturers in the Dutch Indies has published figures for the average cost of producing 100 kilos of "crystal" sugar, i.e. costs calculated against the crystal content of all the various qualities of sugar actually produced. The figures are for gross costs, including all rates, taxes, renewals and repairs, but excluding new charges by way of extension and interest. The average price obtained per 100 kilos of crystal sugar is also published in their annual

report: this is the price calculated by the V.J.P. for the equalisation of the proceeds of all sales amongst the mills. A comparison of these figures of price and cost must not be pressed too closely, but it does show that there has been at all times a margin of profit to the average concern.

(Florins per 100 kg.)

	Gross Cost.	Average Price.	Margin.
1918	12·14	13-95	1·81
1919	13·58	28-60	15·02
1920	32·03	54-39	22·36
1921	20·68	24-42	3·74
1922	16·81	17-79	0·93
1923	18·33	21-42	3·09
1924	18·54	22-89	4·35
1925	15·50	17-34	1·84
1926	13·59	14-31	0·72

A large number of the higher cost mills must undoubtedly have made losses in 1922, though few probably on a serious scale: apart from that year, there was certainly a substantial profit for practically all the mills until 1926, while, of course, in 1919 and 1920 all made fabulous profits. Thus the prices which the V.J.P. obtained were on the whole satisfactory in the eyes of its members, and they were all the more inclined to be satisfied in view of the general outcry of sugar producers all over the world in 1921-22, and again in 1925-26. The doubts and fears which Java might have begun to entertain in 1926 were largely dissipated in 1927, when a crop of 2.4 million tons was successfully disposed of at an average price of F. 16.14 per 100 kg. as compared with the F. 14.31 for the 1926 crop of under 2 million tons. In 1926 Java had been extremely lucky in that weather conditions reduced the crop by 300,000 tons, for she found it impossible to sell almost any sugar for markets west of Suez. as compared with 260,000 tons in 1925, and with the exception of British India, most of the Far Eastern markets took considerably less sugar. The V.J.P. seemed to have handled a very difficult situation with admirable success: Java got rid of her sugar, and few of the mills could claim to have made serious losses, even if few could point to large profits. Confidence in the V.J.P. was increased considerably by this year of adversity, and when in 1927 nearly every market in the East bought more than in 1925, and Europe took 200,000 tons, instead of 14,500 tons as in 1926, it seemed as if the storm had been successfully weathered. It is therefore not surprising that when, in November 1927, Colonel Tarafa (from Cuba) met the leaders of the industry at Amsterdam, he found them by no means so depressed as to be interested in experiments in economic control. At this time the Dutch were confident that their own peculiar markets in the Far East were in a thoroughly healthy condition, and that with their low costs of production, and with an organisation like the V.J.P. to prevent unnecessarily "weak" selling or any attempted stampeding of the market by the big buyers, Java could survive until the mortality amongst other producers brought world production again into line with consumption. Besides, it seemed as if Cuba was determined on a substantial measure of restriction whatever the outcome of Tarafa's negotiations in Europe, and if Cuba did carry out these plans, so much the better for Java: 1928 might even be a comparatively prosperous year after all. It was true that forward sales of the 1928 crop were proceeding somewhat slowly, but consumers must be allowed a little time after their active purchasing in the past season, and F. 16 for white sugar was a very reasonable price under the circumstances. In other words, the real extent of the difficulties of 1928 were more or less unsuspected either in Holland or in Java.

Summarising the activities of the V.J.P. down to 1927, the generalisation may be drawn that it had marketed wisely and well, and made

the most of the generally favourable conditions resulting from the usually adequate margin between costs and proceeds. The argument that there was in general a substantial margin between costs and proceeds down to 1926 or 1927 is, of course, open to the reply that the proceeds were so high largely through the action of the V.J.P., but, as has already been said, the V.J.P. had no power to influence prices except in the short period, and never attempted to do so: the general price level of these years was the competitive price level, and the true merit of the V.J.P. is that it secured this "economic" price in full for the producers. Starting, so to speak, as a defensive organisation, it was quickly able to assume the offensive after the Armistice relieved the shipping shortage, and it certainly made the most of the boom conditions in 1919 and 1920, and of the more modest prosperity of 1923 and 1924. In 1922, and again in 1926, it probably prevented buyers from playing off one mill against another in the way which necessarily follows individual selling in a buyers' market, and thus secured most if not all that buyers were really prepared to pay. But it cannot be said to have been thoroughly tested in really heavy weather—that was now to come.

IV.—THE MARKETING OF THE 1928 CROP.

While, as has been said, few if any of the Java mills anticipated the real extent of the difficulties ahead, it was, of course, realised that the 1928 crop would show a large increase. In 1927 the new cane variety P.O.J. 2878 had been grown on 12½ per cent. of the total planted area, as compared with 0.75 per cent. the year before, and had given such good account of itself, that it had been planted on no less than $66\frac{1}{2}$ per cent. of the acreage for the 1928 crop, and the total acreage had resumed its slow expansion after a check in 1926. This certainty of increased supplies alone might have been enough to account for some timidity by buyers during the autumn of 1927. By January 1, 1928, the V.J.P. had succeeded in selling forward only 148,600 tons of white sugar and 250,600 tons of brown sugar. As has already been mentioned, the sales of white sugar had been at the price of F. 16.* No further sales of white sugar were made by the V.J.P. until February 24, when the first of a series of transactions totalling 500,000 tons was made at F. 15. On March 29 the V.J.P. accepted no bids under F. 15.25, and after a couple of thousand tons had changed hands at this figure, business came to a complete standstill until July. Much the same happened with brown sugar. It was clear that a profound difference of opinion existed between the Trust and its customers. In May the mills began to grind one after another, and since little more than one-third of the output of the associated mills had been sold, storing, which had already begun at some mills in June, became general at the beginning of July. Storing in July, let alone in June, was absolutely unheard of, and it seemed to the managers in Java that the end of the world was at hand. Clearly it was only a matter of a few weeks, almost days in fact, before something had to happen, for the mills had little or no storage capacity and at full production they had to ship to the ports, where storage facilities were by no means unlimited and often of an inferior character. But even more important than the physical problem of storage was the financial problem. Since in Java planting takes place a little before and concurrently with the beginning of the harvest, the cash

^{*} This and all subsequent price figures in Dutch currency refer to units of 100 kilogrammes, unless otherwise stated.

position of the mills is specially strained in June, even when forward sales and conditions generally are normal. Now, at the beginning of July, they had little money left, and nothing in sight to meet the heavy expenses of the harvest. The position was becoming desperate. and it seemed to those on the spot that the Triumvirate in Holland, in their determination to force buyers to give in first, were not only completely out of touch with the market, but absolutely unaware of the essential economic factors of their industry. Eventually the Triumvirate threw up the sponge, and on July 17, accepted bids for white sugar at F. 13.50, a reduction of F. 1.75, and the next day for Browns at F. 12.25, which involved a similar reduction, though in this case F. I of it had been given on July 2. Sales at these prices then continued in very fair volume for the next two months.

It would not seem easy to understand why the Triumvirate so obstinately refused to lower their prices when all the circumstances seemed to point to the inevitability of such a course. In particular the attempt to raise the price of Whites at the end of March appears most ill-judged. But a very substantial explanation is to be found in the course of events in the second-hand market. The whole of the 1927 crop had been sold forward by the Trust during that summer, and sugar for immediate delivery could therefore only be obtained in the second-hand market. During the spring of 1928 it was discovered that exports were exceeding all expectations, while the domestic requirements of Java had been under-estimated and retailers became extremely short of supplies. Buying became very active, and at the end of March the second-hand price had reached no less than F. 17. On March 29 the V. J.P. put up its price for the new crop to F. 15.25, but even though there was still such a disparity, buyers were not tempted. After a temporary decline the second-hand price mounted higher than ever, and a number of transactions were made at F. 18. Both British India and Java itself were extremely short of stocks, and on May I there was under 7000 tons in the port warehouses. By the middle of May, new crop supplies were becoming imminent, and there was a sudden drop to F. 15.06, i.e. below the V.J.P.'s price for new crop sugar. As the new crop sugar began to come forward, buyers became still more easy in their minds, and by the middle of June new crop sugar for immediate delivery was to be had for F. 14. Up to this point, therefore, the policy of the V. J.P. becomes intelligible when account is thus taken of the second-hand market. The V. J. P.'s

almost too low in the face of the prices ruling in the second-hand market, and the Triumvirate may be excused for thinking, as perhaps they did, that if such a difference between old and new crop prices did not tempt buyers, they would not be tempted however much the new crop price might be reduced. Moreover, the shortage of supplies seemed to indicate an unexpectedly large increase in consumption, and it was extremely difficult to foretell what the real strength of the demand for the new crop would be. The Triumvirate in Holland may also have been deceived by the great strength which the European demand was developing during the spring for the limited supplies in the hands of the Cuban Export Corporation, and by the surprising way in which under all the circumstances the New York quotation was holding up. The Triumvirate may have thought that Europe would take any balance of the coming Java crop which was not required in the Far East. Finally, the size of the coming crop in Java was under-estimated. It is, in fact, difficult to blame the V. J.P. until about the middle of June. But during the next month, they probably lost a lot of money in one way and another. Buyers may not have been very eager or numerous at the F. 14 level then ruling, but what they were buying, they were buying from the nonassociated mills, and not from the V.J.P. The non-associated mills appear to have sold a good deal of their output at about F. 14 during the end of June and the beginning of July. The Triumvirate may have hoped that when buyers had exhausted the supplies of non-Association sugar they would be compelled to turn to the Association, and that with an increasing consumption both in the Far East and in Europe, the V.J.P. would be able to get F. 15. But the increase in demand was, in fact, fading away, and so also were the prospects of even a F. 14 price-level. When eventually difficulties of financing and storage compelled the Trust to sell, it certainly did the right thing in coming down to F. 13.50 at one blow, and then holding out firmly for that price: * a series of small reductions would have completely shaken the faith of buyers. While, therefore, the V.J.P. may be criticised for allowing the non-associated mills to skim the cream off the market during June-July, it must be acquitted of the much larger errors which it would appear to have committed if

price of F. 15.25 now appears not too high but

^{*} Actually second-hand sugar was for a short time selling down to F. 13·25, but the output of the non-associated mills was already mainly sold, and very soon the second-hand market settled down at the V.J.P.'s F. 13·50.

events in the second-hand market are overlooked. Their fault lay as much in letting go their sugar too cheap in 1927 as in wanting an

impossibly high price in 1928.

While sales proceeded at a fairly normal rate during August and September, the Far Eastern markets were showing no signs of the improvement which had been hoped for, but rather some decline. The great increase of production in Formosa resulted eventually in a halving of the huge exports from Java to Japan, which had been reaching between 400,000 and 500,000 tons. Demand in Europe was still satisfactory, but Cuba had increased its original allotment to the Export Corporation for sale outside the U.S.A., and that body's clever final sale of the 300,000 tons transferred from the American allotment, had relieved Europe of any pressing necessity to have recourse to more costly supplies from Java. Consequently at the end of September the V.J.P. still had over I million tons unsold, and the prospects of selling it at F. 13.50 were remote. A substantial lowering of its acceptance prices might have stimulated demand, but it would have inflicted enormous losses on the exporting firms which had more or less satisfied their requirements at F. 13.50. If, in fact, the V.J.P. had lowered its price to, say, F. 12.50, most of its largest and most regular customers would almost certainly have been ruined, and the V.J.P. had not the smallest desire, let alone the machinery, to sell direct in consuming countries. Hence recourse was had to a differential price policy. The V.J.P. announced publicly that it was open to consider offers at lower prices for shipments west of Suez, and the following limits were quoted—white sugar for shipment east of Suez F. 13.50 (i.e. the price at which it had been

selling generally since July), and for shipment west of Suez F. 12.50: brown sugar F. 12.50 and F. 10 east and west of Suez respectively. This public declaration of its limits was a proceeding almost as unique as the differential price policy itself. During the end of September and the first half of October, 277,000 tons of Whites were sold for shipment west of Suez either at F. I or F. I.50 rebate, and there were similar large transactions in brown sugars. Meantime small sales of Whites at F. 13.50 were proceeding. Finally, on December 15 the remaining balance of white sugar, amounting to 268,000 tons, was cleared at F. 12.50 irrespective of its destination. The V.J.P. thus managed to dispose of this record crop of nearly 3 million tons, and the average price on the basis of crystal content worked out at F. 13.10, which was also a post-war record in the opposite direction. On the whole the V. J.P. may be said to have surmounted great difficulties with considerable success, although undoubtedly it had increased those difficulties by its tardiness in June–July to recognise the lower price level necessitated by the size of the new crop, and by the flagging of demand in its own Far Eastern markets. Its differential price policy caused great indignation amongst the European beet producers, and raised a storm of protest from British India, but this was only to be expected. The V.J.P. had recourse to such practices most unwillingly, but their only alternatives were either to ruin the exporting firms in Java, which would have been madness, or to hold large stocks, the very idea of which was abhorrent, while the machinery for financing as well as the physical storage space were both virtually non-existent. In the circumstances they must be judged to have taken the best possible course.

V.—THE MARKETING OF THE 1929 CROP.

While the 1928 crop was thus being disposed of, sales of the 1929 crop had also been proceeding. Up to March 23, 1929, the total forward sales of white sugars amounted to approximately half a million tons, but of this, 300,000 tons was accounted for by a single sale on December 21, 1928, to a firm of European exporters. Since another European exporter had bought up the balance of the 1928 crop (268,000 tons), these two firms virtually controlled the available supplies of white sugars up to the end of May 1929 (assuming that grinding began at a normal date, which it in fact did). As other exporters

and merchants had made heavy short sales, these two firms were able to engineer a mild "corner," and by the end of March they had forced up the second-hand price of Whites to F. 16.75, as compared with the V.J.P.'s price of F. 13 for June delivery. As in 1928, though under entirely different circumstances, the second-hand price thus went far above the V.J.P.'s price for future delivery, and consequently sales by the V.J.P. completely ceased. Moreover, the prosspects were for an even larger crop in Java, since the new cane P.O.J. 2878 had been planted on no less than 93 per cent. of the

acreage as compared with 66 per cent. the year before. The abandonment of all restrictions in Cuba was steadily driving down prices in the Western Hemisphere, and the New York quotation had fallen below the 2 cent level early in the year. As the mills began to grind, the second-hand price rapidly dropped from its peak of F. 17.25 early in April to F. 12.75 early in June. The V.J.P. wisely lost no time in reducing its limit from F. 13 to F. 12, which was signalled by a sale of 160,000 tons on June 7. But this reduction failed to stimulate any general burst of buying, as a similar reduction had done in the previous July. This time buyers appear to have thought that the position of the mills was so desperate that they had only to hold out for a few more days and the V.J.P. would be on its knees. But the Triumvirate made no further move, though by the end of June they were being subjected to the sharpest criticism and even some abuse in Java; it must not be forgotten, however, that the sugar men of Java can only rage impotently so long as Holland remains unmoved, just as the rubber kings of Malaya are but the vassals of Mincing Lane. Nevertheless, serious difficulties were arising. The financial results of 1928 had not increased the liquid reserves of the mills, and with the usual heavy costs of planting, and with grinding in full swing, many of them ran short of money. Production had been proceeding at some mills for six weeks by the end of June, and nearly all had been, of the crop. Buying then faded away nearly at work at least a fortnight. Sugar was already being stored and in many cases warehouse charges had to be paid in addition to all the normal cash expenditure. With the sugar actually made, it may be thought that the mills would have had no difficulty in obtaining advances thereon. But when the mills applied to the banks, the latter pointed out that by their contracts with the V.J.P. the mills did not really own the sugar; if the mill defaulted. the bank could not take over the sugar and deal with it as it wished. The sugar was not, therefore, first-hand clean security, and by its constitution the Java bank would not rediscount such paper. It was, in fact, essentially the same situation as that which was very shortly to arise in Cuba as the result of the establishment of the Single Selling Agency. In Cuba it was a real genuine difficulty, since there were only foreign banks and no national bank: in Java it was a mere technical difficulty, and was easily surmounted by the banks allowing the mills to overdraw on condition that their sugar was consigned only to the V.J.P., and then drawing bills of their own for sale to the Java bank. But the fact that

such a difficulty arose, shows how completely Tava had hitherto relied on forward sales, and how entirely novel was any stock-holding by the mills, at any rate in the early part of the harvest.

The situation was therefore becoming critical at the beginning of July. As in the previous year, it was a question of who could hold out longest, the V.J.P. or its customers. This time it was the latter who gave way, partly because consuming markets were getting too short of supplies, partly because the Java crop was not fulfilling expectations and was now likely to show little or no increase on 1928,* and partly also perhaps because negotiations in Cuba for the establishment of the Single Seller were beginning to cause a sharp rise in price in the Western Hemisphere. At the end of the first week in July, substantial transactions were made at F. 12 for white sugar, the same price as the sales of the previous month, and buyers, realising that there was going to be no further reduction, rushed in to buy. After 400,000 tons had been sold at this price, the Trust was able to raise its limit to F. $12\frac{1}{2}$, and then to F. 13, without deterring buyers. Throughout, the marketing of brown sugars had roughly followed the same course as Whites, and now very large sales of Browns were also made, beginning at F. 10 and rising to F. 12. By July 25 nearly 2,100,000 tons had been sold, or rather more than two-thirds as rapidly as it had begun. Immediate needs had been satisfied, and exporters, wondering whether these prices were really justified, and unwilling to increase their commitments or to speculate for a further rise when nearly I million tons remained unsold, had decided to call a halt.

Discontent and dissatisfaction in Tava were allayed. The Triumvirate had held out for a minimum of F. 12, and they had got it, if only so to speak by the skin of their teeth. The delay had meant charges for loans and costs of warehousing for many mills, but the large sales at F. 121 and 13 would cover this, and leave a margin which few had expected to get. Perhaps after all these great men in Holland had not played their cards too badly! Nevertheless, nearly I million tons remained unsold, and now buying had ceased. In the end, much of this would perhaps have to be dumped west of Suez at special prices, and probably very low ones. British India had been so offended by this policy in 1928 that she was looking more towards Europe than Java, and perhaps

^{*} The 1929 crop eventually proved to be 2,945,000 tons as compared with 2,986,000 in 1928.

Europe would be able to supply more than in previous years at attractive prices. tion in Formosa had been still greater, and Japanese imports from Java had not recovered. though the extension of many Japanese refineries was resulting in a policy of buying Java sugar to make up their capacity requirements and then dumping the refined product in China: this was a saving grace from Java's point of view, for otherwise exports to Japan would have dwindled still further. The rise in the price of Cuban sugar had been checked by the postponement of the Single Selling Scheme, and it was still very doubtful whether it would really raise prices in the long run. Altogether the prospects were not too bright, and the margin of profit, even at F. 12, was not so comfortable as many mills would have wished. Hence, as August drew on and no further sales were made, criticism of the Triumvirate revived. But somewhat to the surprise of the market, on September 5th the V.J.P. made various sales totalling 160,000 tons of Whites at F. 13, an advance of 50 cents. This was the beginning of another burst of buying, and within a week a further 185,000 tons of Whites were sold at the same price, the last 10,000 tons at F. $13\frac{1}{2}$. Large sales of

Browns were also made at correspondingly higher prices. At the same time there was a comparatively brisk opening of forward sales of the 1930 crop; nearly 60,000 tons of Whites were sold at F. 14, and the same quantity of Browns at F. 12.50. But by mid-September buying once more subsided almost completely, and there was very little business either in the current or future crop for the rest of the year. The Triumvirate could have sold out its Whites at F. 13, but in raising its limit to F. 13.50 it had choked demand. Bids at F. 13 were still being made in November, but the Triumvirate evidently hoped that supplies would run short before the new crop arrived as in 1928, and that it would be able to round off its successes. At the beginning of 1930 it still had about 150,000 tons, and the second-hand market price was well below its limit. Very slowly small sales were made at descending prices until F. 10 was reached, but eventually the Triumvirate had to put its pride in its pocket and clear out the balance of 40,000 tons at F. 9 on May 8, this final sacrifice being necessary to preserve the trade custom that sales for May-June delivery are of new crop sugar. Meantime there had been no important forward sales of the 1930 crop since September 1929.

VI.—THE V.J.P. AND ITS PROBLEMS.

With no desire whatever to withhold praise where praise is due, it nevertheless seems hard to deny that the V.J.P.'s relative success in 1929 was less due to judgment than to sheer good luck. The large sales in September confounded all its critics in Java, and the general opinion was that whereas the Triumvirate had seemed fools if not knaves, they had, in fact, shown themselves to be extraordinarily wise and long-headed. Java is proud of the V.J.P., and everyone was glad to be able to turn from criticism to praise. But, in fact, the burst of buying in July was actually precipitated by the rise in prices in the Western Hemisphere. Buyers in Java could probably have waited a few weeks, though of course they were bound to buy fairly soon or consuming markets would have run short of supplies. But it is extremely questionable whether the V.J.P. could have held out much longer, not only on account of the physical problem of storage, but also because the indignation of some of its members might well have led to a breakaway. The rise in prices in the Western Hemisphere was partly due to the unexpected strength of demand in Europe, and to that extent may have been foreseen by the Triumvirate. But in the main it was due to anticipations that Cuba would adopt Tarafa's Single Seller Scheme, and as that scheme was hardly on the tapis until the beginning of June, no wisdom on the part of the Triumvirate could have been exercised on this matter before then, if indeed as early. In standing out for their price during August, the Triumvirate may have had in mind the possibility that consumption in Europe had been proceeding a little too fast for the available supplies, and that there would therefore be a further rise in prices, but they would probably admit that their success was due partly to luck. Finally, in raising their price to F. 13.50, the V.J.P. undoubtedly committed a grave error of judgment, and this time no slice of luck rescued them from the results, while by holding out for high prices on the balance of the old crop it is at least arguable that they were stifling business in the new crop. Admittedly the amount was small, and the V. J.P. could afford to speculate with it, but if this was their attitude, it betokens a definite change of policy, though one which in any case was being thrust upon them, whether they liked it or not.

Until 1928 and 1929 the policy had been to sell forward, and leave the exporters and dealers to perform the risk-bearing function of holding stocks. If, at the end of a season, the V.J.P. realised that its forward sales had, in fact, left the exporters with large profits, it did not begrudge them such profits. The forward sales had been made at prices which gave the mills a reasonable return, and the profit subsequently made by the exporters was their reward for the risks of values changing before the sugar was delivered to them, and in turn passed on. But it is obvious that this attitude depended very largely on the forward sales realising prices which did give the mills a reasonable return: if the V. J.P. could only sell forward at prices which little more than covered costs, its members would naturally tend to be indignant if the exporters subsequently made large profits. Hence, as prices dropped to the relatively low levels of 1928 and 1929, the V.J.P. was inevitably driven to exact the best possible terms. The exporters and merchants in Java are unanimous in their complaint that the V.J.P. has been leaving them an entirely insufficient margin of profit, and while they would normally tend to keep their commitments in bounds on a falling market, the fact remains that during the last two years they have adopted a purely hand-to-mouth policy, and the V.J.P. have not been able to make adequate forward sales at prices which it was willing to accept. The V.J.P. has therefore been forced to take over a substantial part of the risks of changing values, because the exporters required a greater margin for bearing them than the V.J.P. was prepared to give. Either the V.J.P. or the exporters must perform this riskbearing function, and if the former are unwilling to do so, then they must offer sufficient inducement to the latter to buy freely well in advance, even if at prices which leave producers small profits or even involve them in losses. For a single season, or even two or three seasons, the V.J.P. may squeeze the exporters, but the latter will not stand it for long, and if they retire from the scene, the V.J.P. will then be involved in still further commitments, for it will have no choice but to perform the marketing as well as the riskbearing functions which are now discharged by the exporters. This would be no simple matter for the V.J.P. because the markets for Java sugar are so many and so diverse as to require intimate local knowledge, while it must be remembered that Java's white sugars require no further refining process for the Far Eastern markets, and therefore the exporters deal in relatively small quantities with a very

large number of wholesalers, and do not simply pass on the sugar in large consignments to a comparatively few refineries. There is here a vast difference as compared with Cuban sugar. The marketing of Java sugar is, in fact, a most intricate operation, and the V.J.P. probably realises as well as anyone the tremendous difficulties which they would have to surmount, if they attempted to take over the work of firms which have built up an elaborate network of branches and connections all over the Eastern Hemisphere, and which have, under the stimulus of keen competition, achieved a high standard of specialised skill in this particular work. The V.J.P. could, of course, retain their services as distributors by paying them a commission to market the crop on its behalf, but while the exporting firms would be more than content to undertake this for I or even perhaps $\frac{1}{2}$ per cent., the V.J.P. would, of course, be altogether too much in their hands, and the whole position from its point of view would be impossibly treacherous and difficult.

The V.J.P. therefore has two alternatives. The first is to pursue a liberal policy of "live and let live "with the exporters as in the past, but with the realisation that unless Java's costs can be further reduced and kept down much below the costs of other competing producers—and this without entailing any excessive increase in the size of the cropsuch a policy may entail less satisfactory results than in the palmy days of the past, and even losses when exporters subsequently make a profit. The second alternative is to take on to its own shoulders the functions both of risk-bearing and distribution which have hitherto been performed by the exporters, and dispense with the latter's services altogether. But whatever the feelings of the great concerns which form the Triumvirate, it is certain that the large majority of the other producers are most unwilling to shoulder the great risks which this second alternative implies. The last thing they want is to increase their risks, for they feel that their present risks as agriculturists are more than sufficiently heavy; the problems of stock-holding seem to them a horrible nightmare, while the idea of reorganising the V.J.P. into a highly capitalised direct marketing agency, with innumerable branches all over the Far East and in Europe, appears sheer madness. The Triumvirate itself probably shrinks from any such scheme, for the problems of directing from Holland the manifold activities of these concerns in Java are quite sufficiently difficult already. Despite modern methods of transport and communication, mere distance is still a complicating factor in large-scale business organisation. Even if they were successfully to establish machinery for direct marketing, it is almost certain that defections from the ranks of the V.J.P. would rob them of that limited but substantial control of price which in the short period they now possess, and thus they would probably lose on the swings anything they might gain on the roundabouts. In short, the V.J.P. has for practical purposes only the first alternative; the exporters have

the whip hand in the long run.

It may, however, be asked why the V.J.P. should not continue at least for a time to handle the crop as it did in 1928 and 1929. By waiting to sell until the beginning of the harvest, it reduces the amount of risk which the exporter has to undertake if he buys forward earlier: thus the exporter need not be allowed so great a margin, and provided the mills can ship out their sugar to buyers more or less as it is produced, all stock-holding problems are avoided and a flow of cash begins when really necessary. The producers and the exporters would then share the risks and the payment between them, and in the long run neither would be any the worse off. But this means that the non-associated firms would always be in a position to skim the cream off the market by selling their output before the V.J.P., at prices below the V.J.P.'s current limit but a little above the level to which that limit would eventually be reduced. This happened in 1929, and it was the greatest cause of annoyance and dissatisfaction amongst the V. J.P. members. Every member felt that it would be to his advantage to leave the Association and be free to sell his sugar, provided, of course, that all the rest continued their membership. The fear that the Trust would do the same again in 1930 was the cause of much similar argument during the winter of 1929-30. Such feelings among the membership mean the beginning of the end in all kinds of cartel organisations, and the V.J.P. can ill afford to lose members. If the V.J.P. continue to operate as in 1929, internal disruption will shortly end its career: it cannot stand still, and since it strongly objects to going forward, its only means of salvation is to go back.

If the V.J.P. endeavours to return to the practice of selling a substantial amount of the crop forward, the real difficulty again is to keep its members satisfied. If the prices so obtained afford no profits to the mills, or even mean small losses, the mills will be inclined to blame the Trust, and to think that they could do better themselves. On the other hand, if prices fall so low that practically all the mills

are losing heavily, they may feel that unity is their only chance of survival. In other words, the Trust has probably more to fear when prices are close around the average cost of production than when they are very definitely below it. No statistics of costs have been published since 1926, when the gross cost was F. 13.59, *i.e.* inclusive of rates, taxes, renewals and depreciation. The introduction of the new cane variety P.O.J. 2878 with its 25-30 per cent. increase in yield has, of course, meant a very considerable reduction of costs. Various figures were given me by different authorities when I visited Java this spring, varying between F. 10 and F. 11 per 100 kg. Some mills can probably produce at F. 9, and the cost of producing 75 per cent. of the crop may be under F. 10, but the average for all mills is probably about F. 10.50. In 1929, therefore, practically all mills covered their costs, but taking into account warehouse and financing charges, an appreciable number probably had little margin of profit. As has been said, there was much criticism of the V.J.P., but in the end things turned out much better than had been anticipated. If in 1930 prices had been such as to give an average of F. 10-11 on the basis of crystal content, there would probably have been serious dissatisfaction. But now that, in fact, the price has fallen much below this level,* its members are probably feeling that, without the V.J.P., disaster would be imminent. For whatever it has not done, the V.J.P. does at least prevent competitive selling by the mills in a buvers' market. This, and its prevention of losses through bad debts, are its main merits. If these advantages seem small in comparison with the reputation which the V.J.P. possesses, they are nevertheless not to be minimised. There has been much misconception of the powers of the V.J.P., as well as of the rôle which it was organised to play: it is not a "Trust" in the normal sense of that word, and it is not capable of the degree of control over prices and output which are associated with that appellation. On the other hand, it has not to face the manifold and great difficulties which any real attempt at artificial control involves, and the very limited application of such powers as it does possess has been its great strength in the past. If the Java sugar industry allows the V.J.P. to be dissolved, it will be breaking up an extremely useful tool, simply because it could not do work for which it was never designed or

^{*} Up to the middle of August the V.J.P.'s limit was F. 9.

In concluding this study, however, it is impossible to avoid some discussion as to whether the Dutch are right in refusing to face the difficulties of stock-holding and direct marketing. The V.J.P. cannot stand still, and it will have to go back, since there is undoubtedly too much opposition to a forward march. But is this opposition sound? the whole, in my opinion it is sound. As has been repeatedly said, Java does not sell to a handful of refiners in one or two countries, or in essentially similar markets, as, for example, does Cuba. If it supplanted the exporters, the V.J.P. would have to sell in small lots to many buyers in many widely differing countries, and it seems extremely doubtful whether a V.J.P. reconstituted for this purpose would be able to discharge these specially difficult risk-bearing and merchanting functions as well as do a number of firms, most of whom specialise mainly or at least in part on particular markets, and whose other activities can be dovetailed into their sugar business with considerable advantage all round. Moreover, as regards risk-taking, it must not be forgotten that the Java mills produce the cane themselves, whereas in most other countries the mills purchase their supplies of cane on some sort of profit-sharing arrangement, and thus incur little risk on the agricultural side of the mill: hence they can afford to undertake considerable risks with the sugar when made. On the other hand, it is, of course, the very fact that in Java the cane is produced by the mills, which makes it possible to sell the crop before it is milled. In Cuba, for example, a mill which wished to sell forward would have to alter completely its traditional relations with its colonos, for it would have to arrange to buy the growing cane at a definite price, and it would be most difficult to arrange detailed conditions as to tonnage of cane and its yield, such as would preserve the colono's interest in the proper care of the crop after it had been sold. But even if the Cuban mills did offer to sell forward, there is little inducement for the refineries in the U.S. or even in Europe to close with such offers. The refineries, like the tin-smelters in Malaya, hold too large quantities in process and in stocks to permit speculation; their business is refining and not speculation on changing values, and so they hedge pari passu with their purchasing, and if they did want to speculate, it is much easier to do so in the New York terminal market than in definite contracts with Cuban mills. Similarly, if a Cuban mill wishes to pass on its risks, it can do so much more simply by speculation in New York than by making con-

tracts with refiners. Java's trade is so entirely different that what is possible and advantageous in her case, is by no means so in the case of Cuba, and vice versa. It is virtually impossible for Cuba to have a Single Selling scheme which does not leave the Cuban mills with any less risk-bearing than they at present undertake. It is perfectly possible for Java to have such a scheme without adding commercial risks to the agricultural risks already undertaken by the Java mills. It is virtually impossible for Cuba to operate a Single Selling Scheme satisfactorily without adequate financial backing, such as Cuba cannot provide. It is perfectly possible for the V.J.P. to gain solid advantages for the Java producers without any financial backing whatever, even though Tava could undoubtedly provide whatever finance was necessary. On the other hand, whereas a strong Single Seller with adequate financial backing might very well be of the greatest advantage to Cuba, it is extremely doubtful whether it would be of any benefit to Java. On the agricultural side the two countries are as different as they are geographically distant from one another, and the same is nearly as true of their whole commercial environment and problems.

This recognition of the soundness of the Dutch attitude is strengthened when one considers that Java is still the lowest cost producer in the world. Admittedly some of the large American mills in Eastern Cuba can probably produce more cheaply than perhaps even the very best mill in Java, but Cuba cannot produce 3 million tons as cheaply as can Java. While many people in Java have wished that the new cane P.O.J. 2878 had not been discovered at the precise moment at which it was discovered, it is extremely doubtful whether the resulting reduction in costs did not outweigh the pressure of the larger supplies on selling prices even in 1928 and 1929. Prices in the Eastern Hemisphere depend not only on the Java crop, but on the production in India and other Asiatic countries, and, further, on conditions of supply and demand in the Western Hemisphere. The heavy fall in prices in Europe was bound to cause a fall in Asia, and though the increased Java crop assisted to press down the Eastern price farther than it would otherwise have gone, the Eastern price would have fallen considerably in any event. Java is certainly better able to face the crisis of 1930 with P.O.J. 2878 than without it, even though it is not quite living up to early expectations. If the V.J.P. refuses to carry over a substantial amount of sugar, the way will be clear for a rise of prices to more reasonable levels, and the crisis will not be unnecessarily prolonged by large stocks weighing on the market. Some more mills will doubtless pass into the control of the banks, but this is probably better from Java's point of view than the risks and difficulties involved in stock-holding on a large scale or other attempts at control. The V.J.P., however, appears to be prepared to hold substantial stocks. Up to the middle of August, the total sales of 1930 crop sugars have amounted only to 414,000 tons. If the V.J.P. carries over say I million tons into 1931, the prospects of a return to a reasonable price-level are thereby diminished, and the V.J.P. may come to wish

that it had shouldered a big loss in 1930 rather than hung such a mill-stone round its neck. Nevertheless, since Java is the world's lowest cost producer, so she will feel the pressure least and the ensuing relief most. Costs can probably still be reduced much further in Java, both in the long run and more or less immediately, though the latter may involve some temporary reduction in efficiency. Even at this time of acute crisis, the Dutch may well conclude that the sugar industry of Java will survive to enjoy the prosperity which will in due course return, when a sufficient volume of capacity has been closed down in other countries.

APPENDIX.—STATISTICAL TABLES.

Note.—The following tables present only such statistics as are specially relevant to the present study. The figures are mostly taken from Gijselman and Steup's Annual Reviews, and from the Annual Report of the Sugar Producers' Association of the Netherlands Indies.

For statistics relating to the world market, reference should be made to pp. 42-43.

TABLE I. SUGAR PRODUCTION OF JAVA.

Year.	Production. (000 metric tons.)	Per cent. sold forward by V.J.P. before May 1.
1914 1915 1916 1917 1918 1919 1920 1921 1922 1923 1924 1925 1926 1926 1927 1928 1929	1,433 1,329 1,639 1,828 1,791 1,342 1,552 1,694 1,810 1,803 2,003 2,315 1,991 2,398 2,986 2,942 2,950*	70 80 40 45 90 75 80 82 90 40 35

* Provisional.

TABLE II.

DESTINATION OF EXPORTS OF JAVA SUGAR
BY CROP YEARS (MAY 1—APRIL 30).

(Thousand metric tons.)

Environmental resonance de la company de la	National Control of the Control of t				
Exports to—	Crop 1925.	Crop 1926 (including carry-over of 22,000 tons).	Crop 1927 (including carry-over of 24,000 tons).	Crop 1928 (including carry-over of 7,600 tons).	Crop 1929 (including carry-over of 9,900 tons).
West of Suez	260	14	200	423	287
British India Japan and	7 82	818	860	1,115	1,060
Formosa China Hongkong	499 206 190	411 155 196	458 206 204	260 314 306	244
Singapore and				120	782
Penang Siam Other	110 42	103 34	109 36	31 J	
countries	8	18	61	95	20
Total Exports	2,097	1,749	2,134	2,664	2,393

TABLE III.
STOCKS OF SUGAR IN JAVA PORTS.
(000 metric tons.)

Beginning of Month.	1926.	1927.	1928.	1929.
May June July Aug. Sept. Oct. Nov. Dec. Jan. Feb. March April	22 38 139 504 594 710 719 542 1927 410 332 220 111	24 103 286 506 859 1,013 961 793 1928 589 409 270 100	7 51 254 698 1,103 1,383 1,327 1,028 1929 710 467 246 61	10 149 520 916 1,341 1,500 1,361 1,139 1930 911 741

TABLE IV.

ANNUAL AVERAGE SELLING PRICES OF V.J.P. WHITE SUGAR (SUPERIOR HEAD SUGAR)

(as estimated by the Amsterdamsche Bank).

Year	Florins per 100 k.g.
1919	28.40
1920	53.45
1921	24.40
1922	17.74
1923	21.34
1924	
1925	18.77
1926	
1927	17.60
1928	
1929	
1930 (mid-August)	9.0

TABLE V.

AREA PLANTED WITH CANE AND YIELD PER HECTARE.

Year.	Area Planted (000 hectares).	Yield per Hectare (quintals).
1918 1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929	162 139 156 160 161 162 171 179 180 186	109 97 99 105 112 110 116 128 110 127 152

ROYAL ECONOMIC SOCIETY

ISSUED BY ARRANGEMENT WITH THE LONDON AND CAMBRIDGE ECONOMIC SERVICE

MEMORANDUM No. 24

STOCKS OF STAPLE COMMODITIES

BY

J. M. KEYNES, J. W. F. ROWE and G. L. SCHWARTZ

October, 1930

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STOCKS OF STAPLE COMMODITIES

By J. M. KEYNES, J. W. F. ROWE and G. L. SCHWARTZ.

THE statistics given below are in continuation of Memoranda published by the London and Cambridge Economic Service in April 1923, June 1924, July 1925, February 1926, March 1927, and August 1929.

The following table is a summary of the figures given in detail afterwards for each separate commodity.

STOCKS OF STAPLE COMMODITIES.

	ginning of Month.	(1) Cotton. 1,000 bales.	(2) Copper. 1,000 tons.	(3) Tin. 1,000 tons.	(4) Lead. 1,000 tons.	(5) Spelter. 1,000 tons.	(6) Rubber. 1,000 tons.	(7) Sugar. 1,000 tons.	(8) Tea. 1,000,000 Ibs.	(9) Coffee. 1,000 bags.	(10) Petroleum. 1,000,000 barrels.	(11) Nitrate. 1,000 tons.
1920 1921 1922	Jan	7,410 7,353 6,793 — — 9,534 8,470 7,654 6,785	399A ———————————————————————————————————	20 18 19 18 18 16 17 21 24 24 22	U.K. U.S. 50-0 — 28-4 — 18-7 — 19-0 — 23-9 — 13-3 — 9-9 — 0-3 — 0-6 — 0-3 — 0-3 — 0-6 — 0-3 — 0-6 — 0-3 — 0-6 — 0-3 — 0-6 — 0-3 — 0-6 — 0-3 — 0-6 — 0-7 — 0-	61 53 51 61 81 88 99 89 72 60 31	219–229 — — 224–244	2,433 2,003 1,338 2,313 3,331 3,312 2,039 2,761 2,479 1,903	213 213 213 215 214 230 218 191 205 220 170	9,870 8,174 6,750 7,982 8,765 8,687 8,700 8,991 9,403 9,140 8,639	171 182 221 235 302	2,134 1,914 1,800 2,008 2,235 2,384 2,405 2,370 2,622-5 2,149 1,873-5
1923 1924	Oct Jan April July Oct Jan April	4,514 —— 3,111 2,765 2,699 2,010 1,716	325 A 347 350 352 391 402 361	21 26 25 21 20 21 23	0.6	20 17 10 17 21 34 29	286–306 249 278 244 254 226	868 2,433 2,501 2,005 791 2,255 2,460	151 170 183 127 134 166 193	8,481 7,980 6,974 5,340 5,835 4,467 3,964	319 396 414 463	1,945 1,912-5 1,310 1,250 1,415 1,639 1,346
1925	July Oct Jan April July Oct	1,716 1,747 2,673 2,563 1,904 1,715	371 385 389 403 365 347	20 20 25 20 20 20 18	0.0 97 0.1 88 0.1 78 0.0 94 0.1 86 0.0 94	45 42 19 16 21	208 196 181 151 129 141	2,760 2,086 542 2,708 2,891 2,560 1,211	139 137 206 231 181 181	5,071 5,727 5,384 5,389 5,085 5,230	481 487 478 491 505 473	1,250 1,494 1,790 1,368 1,218 1,409
1926 1927	Jan April July Oct Jan April	2,927 3,193 4,068 5,396 4,916 5,211	344 361 370 351 369 367	18 14 16 15 16 16	0.0 93 0.4 105 0.2 106 0.1 106 1.7 113 2.7 130	9 19 24 15 20 33	182 183 193 213 259 273	3,709 4,064 3,452 1,919 3,643	204 195 156 175 207 194	9,547 8,688 7,404 10,111 10,901 8,446	469 503 483 468 476 499	1,675 1,549 1,659 1,779 1,794 1,365
1928	July Oct Jan April July	4,942 5,540 4,622 4,129 3,948	346 323 —	16 15 16 16 16	2.4 152 2.1 143 2.0 139 1.9 155 1.3 146	41 32 38 38 41	263 271 272 270 222	4,090 1,780 4,062 5,442 4,303	145 164 239 243 179	8,032 14,555 18,388 17,908 18,581	521 532 543 568 571	1,175 1,205 1,452 1,091 1,135 1
1929	Oct Jan April July	4,029 3,494 3,020 3,096 3,688	288 298 281 323 335	20 25 27 24 25	1.0 139 0.9 144 1.3 141 0.8 155 0.4 151	44 42 35 34 51	206 239 245 248 280	1,850 4,271 6,190 4,779 2,330	195 241 260 217 222	18,834 18,723 15,703 14,259 21,137	563 571 599 611 627	1,583- 2,036- 1,794- 1,653 2,069
1930	Oct Jan April July Oct,	3,622 3,870	414 490 —	28 28 33 43 40	2.0 135 6.8 129 7.4 — 6.2	73 89 117	321 397 394	5,473 6,982 6,156	286 274 221	25,063 27,470 28,424	624 628 631	2,515- 2,387- 2,249

(1) Total supply seasonally corrected, exclusive of European and Asiatic mill stocks.

Total supply outside hands of consumers. (3) Visible supply. London Metal Exchange figures from

1923.

(7) Total visible supply, exclusive of Interior Stocks in Cuba prior to Oct. 1926.

Stocks in U.K. Comparability uncertain since April 1929. Visible supply in Rio, Santos, Bahia, Europe and U.S., but exclusive of Interior Stocks in Brazil prior to Jan.

(4) Visible supply in U.K., and stocks in U.S.

(5) Visible supply in U.K. and U.S.

(6) Total supply outside plantations.

(10) Stocks of Crude and Refined Oils in U.S.

(11) Visible supply in Chile, U.S., Europe and Egypt.

(12) Allied Govt. stocks amounted approximately to 82,000 tons, and stocks of scrap metal to 183,000; on Jan. 1st, 1922, the former had become trifling, and the latter had fallen to about 90,000 tons, and had become trifling by Jan. 1st, 1923. A decreasing allowance must be added to the figures shown on account of these stocks.

The present position in raw material industries generally is such as to demand the most thorough and intensive study by economists. This would be quite beyond the scope of these memoranda, but a few brief observations and generalisations may be attempted. In the first place, the present level of stocks is in general comparable only with the aftermath of the post-war slump in 1921, and in some cases even that peak is far exceeded. An examination of the statistics of production reveals a fairly general tendency to extremely rapid expansion since about 1924, but consumption was also making great strides, and it cannot be

said that there was any serious lack of equilibrium until towards midsummer 1929. Prices, however, had been tending downwards for some time before that, if not throughout the period, and in some industries control schemes disguised the true position, since an unknown amount of producing capacity was shut down, with the result that stocks were not accumulating as fast as they would otherwise have done. This time last year the available statistics of stocks did not by themselves indicate any serious general excess of supplies, though they were certainly reaching a high level in some cases. But when all factors are

PRODUCTION OF STAPLE COMMODITIES.

Year. Calendar or Season.	American Cotton. 000 bales.	Copper.	Tin. 000 tons.	Lead. 000 tons.	Spelter.	Rubber.	Sugar. million tons.	Tea.	Chile Nitrates. 000 tons.
1924	13,639 16,122 17,977 12,956 14,478 14,749	1,357 1,418 1,475 1,495 1,711 1,907	140 146 143 158 176 188	1,298 1,464 1,570 1,658 1,649 1,725	998 1,132 1,238 1,318 1,401 1,440	420 517 620 605 650 860	23·5 24·6 23·6 24·3 27·1 26·7	831 821 872 891 948 1,000	1,297 2,507 3,228 2,946

weighed together-production, consumption and prices—it is now quite clear that there was a definite lack of equilibrium in tin, rubber, sugar, coffee and petroleum; with copper, lead, spelter, nitrate and cotton conditions were somewhat less out of line. The very fact that resort had already been made to artificial control schemes in sugar, coffee and petroleum is evidence of considerable maladjustment, and the relatively better conditions in copper, lead, spelter and nitrate were largely due to the temporary success of artificial control. If the wheat pools be accounted a form of artificial control, conditions of free production and marketing existed last summer only in cotton, tin, rubber and tea, out of the twelve commodities covered by this Memorandum, and the lastnamed was the only industry where conditions were still reasonably satisfactory. The number of these control schemes is direct evidence that producers generally were feeling the pinch long before midsummer 1929, though it would perhaps be more accurate to say that a large proportion of producers were thus affected, for in many industries the new capacity, which had come into existence since the war, was so much more efficient that even the prices of last summer were distinctly remunerative to these new low-cost producers.

What would have been the course of events if there had been no Wall Street crash is

an idle question, but it may be stressed that the raw materials situation was disturbing before the Wall Street crash as well as after it. At the same time, the crash, as the herald of the present world depression, has, of course, entirely changed the situation in raw materials. Until last autumn little fault could be found with consumption, which in many instances was exceeding even the wildest expectations. The fault lay primarily on the supply, not on the demand side. But with the spread of the world depression, consumption has been definitely checked in its normal advance, and indeed sharply diminished. This temporary decline in consumption, coming on the top of already unsatisfactory conditions, would have been bad enough if it had not incidentally caused a fairly general break-down of the power of restriction schemes to prevent a fall in prices. The combined effect has produced the present general crisis in raw material industries.

Since last October, and especially during the first quarter of this year, stocks have rapidly piledup to enormous proportions, even relatively to a normal consumption. Not only did the breakdown of the previous restriction measures temporarily increase the amount of active capacity, but the immediate effect of the fall in prices was that every producer strove for the maximum output in order to reduce costs. Early this summer in many commodities

there was a further definite break to prices far below marginal total costs, and in some cases even below the prime costs of all but the most efficient producers. Stocks had in these cases piled up to such an extent that merchants and speculators were unable to carry any more, or unwilling to do so owing to their previous losses through prices continuing to fall when any further fall had seemed impossible. The function of stock-holding has thus been forced on producers, who in many cases have not the requisite financial resources to enable them to dispense with their usual supply of cash for current expenses of cultivation, even if they can pledge these stocks with banks on any reasonable conditions, which is not everywhere the case. The price of many commodities today (e.g. sugar, rubber, coffee, cotton and even wheat) bears little or no relation to total costs of production, and may rather be said to represent the current conditions on which the existing and prospective surplus stocks can be The present large stocks of many commodities in the hands of producers are at present being satisfactorily held, but it is doubtful in some industries whether this can continue for long, and therefore it is quite possible that prices will go even lower than at present, since there is really no limit to the potential fall when everything depends upon stockholding.

On the other hand, more recent attempts to operate restriction schemes are meeting with some measure of success, e.g. in copper, tin and nitrate, and this may prevent matters from becoming still worse, even if their ultimate benefit, either to producers or consumers, may be called in question. Again, in other cases, e.g. in sugar, coffee, copper and cotton, invisible stocks are probably extremely small, and some part of the recent decline in statistical consumption may have been due to a reduction of these invisible supplies, i.e. the rate of actual physical consumption may not have been so much reduced as statistical consumption would

suggest. Against this, however, it must be admitted that the full effects of the world depression have probably not yet asserted them-If, however, consumption is really proceeding faster than the rate at which manufacturers and middlemen have been purchasing from producers, an increased demand will shortly materialise. Should this be sufficient to raise prices a little, or even to give a reasonable assurance against any further fall, there might well be a rush to rebuild invisible stocks at these lowest prices ever known in recent times, while speculators would at once regain their confidence and seek to recoup their losses. Prices may therefore recover with considerable rapidity to levels nearer the marginal costs of the supplies which the world will require in the immediate future.

Looking into the more distant future, however, the downward trend of costs, due to technical progress, of many raw commodities relatively to money incomes must not be overlooked or minimised. Producers may sigh, but they will be sighing quite in vain, for a return to the same relationship between the prices of their products and the general level of money incomes which prevailed even quite lately. Alongside the slump attributable to the credit cycle there is proceeding an adjustment of production to the lower relative price level consonant with the progress of technique. The rate of this advance varies greatly in different industries, and so, therefore, does the need and necessity to retire old high-cost capacity, which cannot either physically or profitably be modernised. Many industries have to undergo a pruning process sooner or later, and until that is accomplished, there can be no return to equilibrium. This is not, however, to deny that if the present price level continues for any length of time, that pruning may in some industries be too drastic, even from the point of view of the consumer and his ultimate interests.

A NOTE ON WEIGHTS AND MEASURES.

running bales," i.e. regardless of exact weight and counting round bales as half-bales. At the end of each season the U.S. Department of Commerce publishes the average weight of the bales produced in each State during that season, and this makes possible the conversion of running bales into equivalent 500-lb. bales. Normally the average weight of the actual bales is within 6 or 7 lbs. above or below 500 lbs., but recently the tendency has been to be above

rather than below. In Section I, crop figures are given in equivalent 500-lb. bales, but all other figures refer to running bales.

2. Metals. Three different kinds of tons are in common use:

The British Ton (often termed a long ton) = 2,240 lbs.

The American Ton (often termed a short ton) = 2,000 lbs.

The Metric Ton = 2,204 lbs. (approx.).

3. Rubber, Sugar, Tea, Nitrate. Statistics are usually given in British tons (= 2,240 lbs.) and pounds.

4. Coffee. A bag (normally) = 60 kilos. = 132.3 lbs.

5. Petroleum. A barrel = 42 gallons.

THE U.S. DEPARTMENT OF COMMERCE INDEX OF COMMODITY STOCKS.

This index includes 65 commodities, 46 covering manufactured goods and 19 raw materials. The index has been weighted by the relative value of the supply of each commodity in the years 1923 and 1925, ascertained by adding to the value of the amount marketed or manufactured the value of the amount imported. For manufactured products the values given are those shown in the census reports on manufactures, while for raw materials the weights used are those derived from the index of production and marketings. No adjustment has been made for seasonal variations. For further details, reference should be made to the Survey of Current Business, August 1928.

INDEXES OF COMMODITY STOCKS IN THE UNITED STATES.

A WOOD CONTRACTOR OF THE PARTY	THE CONTRACT OF THE PARTY OF TH	MATERIAL PROPERTY AND ADDRESS OF THE PARTY AND	
	Total Index.	Manu- factured Goods.	Raw Materials.
1919 monthly average 1920 ,, ,, 1921 ,, ,, 1922 ,, ,, 1923 ,, ,, 1924 ,, ,, 1925 ,, ,, 1926 ,, ,, 1927 ,, ,, 1928 ,, ,,	93 86 102 95 95 102 104 115 121 123 137	90 84 97 87 94 103 106 113 117 120	95 87 106 100 95 101 104 121 127 127 149

TOTAL INDEX.

	March.	June.	Sept.	Dec.
1925	108 115 123 127 134 142	92 104 106 109 120 125	101 108 119 116 139	124 136 132 142 158

MANUFACTURED GOODS.

	March.	June.	Sept.	Dec.
1925 1926 1927 1928 1929	108 109 111 121 124 127	105 110 114 118 121 125	99 104 115 111 114	101 106 112 121 119

RAW MATERIALS.

	March.	June.	Sept.	Dec.
1925 1926 1927 1928 1929	108 119 133 132 141 152	81 99 101 102 120 125	103 112 124 119 158	142 159 150 156 186

I.—AMERICAN COTTON.

At any given time stocks consist of the following :—

(I) Stocks up-country in the Southern States on plantations, railroads, and in "uncounted" * interior towns.

(2) The "visible" supply. This consists of (a) stocks in public storage and at compresses (warehouse stocks) in the more important interior towns and in the ports of the United States, (b) cotton afloat for Great Britain and the Continent, (c) warehouse stocks in the principal European ports, namely, Liverpool, Manchester, London, Havre, Marseilles, Genoa, Bremen, Ghent, Rotterdam and Barcelona.†

* I.e. towns not included in the figures of stocks in public storage and at compresses.

† Cotton affoat for Japan and in Japanese ports is not allowed for. All cotton consigned to Japan is considered by the leading exchanges as "consumed" or "out of sight."

(3) Mill stocks in spinners' hands throughout the world, generally known as the "in-

visible " or " out of sight" supply.
In the first table the "up-country" stock is taken as the "up-country" carry-over in the Southern States plus warehouse and mill stocks in the U.S. at the end of each season, plus the current year's crop, minus the U.S. consumption to any particular date, minus the net exports to that date (i.e. exports minus imports), minus warehouse and mill stocks at that date. By this means it is possible to estimate the location of all cotton in the U.S. month by month. But it follows that the whole of the new crop is suddenly added to the "up-country" stock in August each year. This is corrected in Table I, page 6, by the "seasonal correction," which provides what would be the figure of total

TABLE I. TABLE OF SUPPLIES OTHER THAN EUROPEAN AND ASIATIC MILL STOCKS.* (1,000 bales.)

En	d of Month.	Up-country.	U.S. Warehouse Stocks.†	U.S. Mill Stocks.†	Total in U.S.A.	Correction for Season.	Corrected Total in U.S.A.	Visible outside U.S.A.	Grand Total, excluding Mill Stocks outside U.S.A.‡
1919	July	2,193	2,212	1,304	5,709		5,709	347	6,056
1920	Oct Jan	11,973 3,780	1,974 3,760	1,365 3,677	15,312 11,217	9,000 6,000	6,312 5,217	1,077 2,082	7,389 7,299
1020	April	3,252	2,967	1,809	8,028	3,000	5,028 5,116	2,034 1,352	7,062 6,468
	July	1,703 § 11,414	2,055 4,168	1,358 944	5,116 16,526	10,311	6,215	1,334	0,400
1921	Jan	6,788	5.645 5.029	1,273 1,316	13,706 11,306	6,874 3,437	6,832 7,869	_	
	April July	4,961 3,713 §	3,723	1,111	8,007		8,007	1,645	9,652
1922	Oct	7,577 4,550	4,982 4,618	1,405 1,675	13,964 10,843	6,330 4,220	7,634 6,623	1,598 1,581	9,232 8,204
1944	Jan April	3,484	3,214	1,458	8,156	2,110	6,046	1,436	7,482
	July	964 §	1,488	1,218	3,670	7,302	3,670	1,120 1,023	4,790
1923	Jan	1,569	3,486	1,988	7,043	4,868	2,175	1,296	3,471
	April July	667 280 §	1,966 945	1,878 1,099	4,511 2,324	2,434	2,077 2,324	804 376	2,881 2,700
	Oct	4,667	3,486	1,103	9,256	7,596	1,660	962	2,622
1924	Jan	1,049 341	2,966 1,512	1,633 1,328	5,648 3,181	5,064 2,532	584 649	1,268 966	1,852 1,615
	July	160 §	674	721	1,555		1,555	528 1,021	2,083
1925	Oct Jan	7,008 1,780	4,225 3,863	731 1,434	10,242 7,077	10,242 6,828	1,722 249	1,956	2,743 2,205
1020	April	341	1,666	1,515	3,522	3,414	108 1,504	1,731 764	1,839 2,268
	July Oct	2,308 7,977	487 4,499	878 1,216	1,504 13,692	12,078	1,614	1,280	2,894
1926	Jan	2,223	5,176	1,811	9,210	8,052	1,158	1,707 1,388	2,865 3,348
	April July	816 510	3,531 1,936	1,639 1,096	5,986 3,542	4,026	1,960 3,542	985	4,527
1927	Oct	10,425 3,480	5,470 6,070	1,216 1,853	17,111 11,403	13,266 8,844	3,845 2,559	1,551 2,905	5,396 5,464
1921	Jan July	535	1,823	1,404	3,762		3,762	2,096	5,858
	Aug	12,496	2,173	1,122	15,791 14,571	11,876 10,796	3,915	1,755 1,765	5,660 5,540
	Sept Oct	9,487 6,105	3,965 5,433	1,119 1,327	12,865	9,716	3,775 3,149	2,110	5,259
	Nov Dec	3,766 2,676	5,969 5,656	1,551 1,707	11,286 10,039	8,636 7,556	2,650 2,483	2,263 2,139	4,913 4,622
1928	Jan	2,061	5,014	1,707	8,782	6,476	2,306	2,087	4,393
	April July		2,921 1,189	1,508 1,007	5,522 2,531	3,236	2,286 2,531	1,915 1,365	4,201 3,896
	Aug	14,283	1,189	782	16,254	13,266	2,988	1,087	4,075
	Sept Oct		2,646 4,636	720 1,195	14,970 13,262	12,060 10,854	2,910 2,408	1,119 1,657	4,029 4,065
	Nov	4,366	5,253	1,567	11,186	9,648	1,538	1,966	3,504
1929	Dec Jan		5,315 4,615	1,741 1,768	9,664 8,186	8,442 7,236	1,222 950	2,272 2,276	3,494 3,226
-00	Feb	1,393	3,876	1,746	7,015	6,030	985	2,173	3,158
	March April		3,177 2,524	1,731 1,607	5,865 4,864	4,824 3,618	1,041 1,246	1,979 1,786	3,020 3,032
	May	. 598	1,848	1,477	3,923	2,412	1,511	1,564	3,015
	June July		1,376 985	1,289 1,052	3,080 2,312	1,206	1,874 2,312	1,222 1,005	3,096 3,317
	Aug	14,064	1,387	802	16,253	13,519	2,734	785	3,519
	Sept		3,225 5,312	792 1,361	15,055 13,183	12,290 11,061	2,765 2,122	923 1,454	3,688 3,576
	Nov	. 4,211	5,842	1,672	11,725	9,832	1,893	1,673	3,566
1930	Dec Jan		5,914 5,407	1,844 1,830	10,397 9,043	8,603 7,374	1,794 1,669	1,868 1,816	3,662 3,485
	Feb	. 1,498	4,859	1,812	8,169	6,145	2,024	1,720	3,744
	March April	. 1,093	4,189 3,636	1,763 1,667	7,211 6,396	4,916 3,687	2,295 2,709	1,575 1,395	3,870 4,104
	May	. 899	3,337	1,531 1,357	5,767	2,458	3,309	1,177	4,486 4,970
1	July	. 470	3,105 2,877	1,183	5,187 4,530	1,229	3,958 4,530	1,012 818	5,348
	Aug.	. 1 - 1 - 1						747	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1

^{*} This table excludes linters, except that an insignificant quantity is included in the import figures.
† Figures for all kinds of cotton.
‡ Seasonally corrected and excluding European and Asiatic Mill Stocks.
§ The carry-over according to the above method was as follows:
1920, 2,171; 1921, 3,779; 1922, 2,615; 1923, 356; 1924, 6; 1925, 0; 1926, 400; 1927, 274; 1928, 487; 1929, 286; 1930, 575.

| Provisional.

stock in the U.S. if the current crop came into existence at an even monthly rate through the year. The statistics of U.S. warehouse stocks and mill stocks are compiled by the U.S. Bureau of the Census, and may be regarded as reliable, as also may the "visible" supply of Great Britain and the Continent.* The estimates of the current crop are reasonably accurate by the end of each calendar year. The "up-country" carry-over is the most doubtful item, and is always liable to be under-, rather than over-estimated. The estimates of Mr. H. G. Hester, the Secretary of the New Orleans Cotton Exchange, have

* As given by the Liverpool Cotton Exchange.

been used until 1922, since when the estimates of the Shepperson Publishing Company (Cotton Facts) have been preferred. The monthly calculated figures for "up-country" provide at best an estimate of the actual state of affairs, but in most years they tally reasonably well with the "up-country carry-over" estimates (see Note § below table).

At the beginning and in the middle of each season, statistics of European and Asiatic Mill stocks, and of the world's actual consumption during the previous six months are available, and the position of the world's total stocks is shown in the two following tables:

TABLE II.

ANNUAL TABLE OF TOTAL STOCKS AT THE END OF EACH SEASON (AUG. 1st).

(In 1.000 bales.)

					.,000							
	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.	1929.	1930.
Up-country carry-over in interior cotton belt U.S. Warehouse stocks U.S. Mills stocks	2,193 2,212 1,304	1,703 2,055 1,358	3,713 3,723 1,111	964 1,488 1,218	280 945 1,099	160 674 721	230 487 787	510 1,936 1,096	535 1,823 1,404	335 1,189 1,007	275 1,052 985	470 2,877 1,183
Total in U.S	5,709 1,247 305 ?	5,116 1,394 475 267*	8,547 1,695 690 248	3,670 1,120 838 381	2,324 376 496 185	1,555 528 502 173	764 787 219	3,542 985 663 250	3,762 2,096 1,041 572	2,531 1,365 792 327	2,312 1,005 730 390	4,530 818 629 247
Total Crop for year †	7,261 12,000	7,252 13,750	11,180 8,442	6,009 9,738	3,381 10,128	2,758 13,639	3,274 16,122	5,440 17,977	7,471 12,956	5,015 14,478	4,437 14,749	6,224 14,200:
Total available Total carried forward	19,261 6,990	21,002 10,386	19,622 7,066	15,747 3,081	13,509 2,554	16,397 3,141	19,396 5,666	23,417 7,637	20,427 5,020	19,493 4,417	19,186 6,163	20,424:
Consumption for year	12,271	10,616	12,556	12,666	10,955	13,256	13,730	15,780	15,407	15,076	13,023	

^{*} Excluding China.

t Provisional.

TABLE III.

ANNUAL TABLE OF TOTAL STOCKS IN THE MIDDLE OF EACH SEASON (FEB. 1st).

(In 1,000 bales.)

基系 基系对应的 经通过 计开始 医门门	100	4 10 to 6 1 1 1 1	4.7%	(,	ooo bares.	·					
	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.	1929.	1930.
Up-country stocks U.S. Warehouse stocks U.S. Mill stocks	3,780	6,788	4,550	1,569	1,049	1,780	2,223	3,480	2,061	1,866	1,806
	3,760	5,645	4,618	3,486	2,966	3,863	5,176	6,070	5,014	4,615	5,407
	3,677	1,273	1,675	1,988	1,633	1,434	1,811	1,853	1,707	1,768	1,830
Total in U.S. European Port stocks (including afloat) European Mill stocks Asiatic Mill stocks	11,217	13,706	10,843	7,043	5,648	7,077	9,210	11,403	8,782	8,249	9,043
	2,018	1,650	1,575	1,296	1,268	1,956	1,707	2,905	2,087	2,276	1,816
	597	675	740	637	578	755	842	848	845	783	703
	117 *	166 *	390	206	203	201	192	269	331	349	219
Total available Total available Aug. 1st preceding	13,949	16,197	13,548	9,182	7,697	9,989	11,951	15,425	12,045	11,657	11,781
	19,261	21,002	19,622	15,747	13,509	16,397	19,396	23,417	20,427	19,493	19,186
Consumption for half- year	5,312	4,805	6,074	6,565	5,812	6,408	7,445	7,992	8,382	7,836	7,405

^{*} Excluding China.

[†] For 1919-21 Hester's estimate of the actual growth, made at the beginning of the season, as the official figures for these years are questionable.

The 1929-30 season opened with a world carry-over of about $4\frac{1}{2}$ million bales, and with the current crop the total available was just over 19 million bales. The position was therefore approximately the same as at the beginning of the 1928-9 season, but before many months it was evident that consumption was running well below the rate of the previous season in all divisions of the world cotton industry.

World consumption in the 1929-30 season was probably not much more than 13 million bales, giving a world carry-over on August 1st, 1930, of about 6 million bales. The new crop has been estimated at over 14 million, giving a total of more than 20 million bales as the available supply for 1930-31. At the current rate of consumption this is well in excess of the world's needs, and it is not surprising, therefore, that cotton prices have recently fallen to the lowest levels since 1915.

There are no statistics relating to Finished Cotton Goods except for the United States. While not by any means complete, these statistics afford an interesting comparable series, as will be seen from the following table:

	1,000	yards.	Cas	ses.
	Produc- tion.	Orders grey yardage.	Ship- ments.	Stocks.
1921 monthly average 1922 " " 1923 " " 1924 " " 1925 " " 1926 " " 1927 " " 1928 " " 1929 " "	85,385	90,154	44,935	36,226
	94,016	95,509	49,102	44,937
	95,098	91,504	48,116	46,166
	77,650	76,105	41,863	43,139
	78,756	76,558	43,691	39,640
	81,214	78,565	47,352	39,641
	84,458	81,710	49,428	38,243
	75,100	74,299	46,563	37,829
	79,795	75,198	48,716	36,433
1929 May	88,707	79,228	54,247	35,618
	78,964	65,462	45,674	34,487
	75,582	69,475	44,809	37,299
	75,845	69,168	45,238	36,320
	73,116	67,991	43,586	35,062
	81,549	78,806	46,173	37,635
	63,663	57,971	38,616	37,635
	61,816	54,172	36,521	38,220
	63,457	71,723	41,793	35,428
	64,271	57,834	37,014	32,967
	66,246	60,526	39,459	32,528
	65,364	56,641	34,308	40,741
	59,384	46,699	39,307	34,571
	50,933	39,249	32,986	34,477

II.—COPPER.

Stocks of copper consist of (1) refined copper in the United States, which constitutes the main part of the world's floating supply, (2) rough and blister copper in transit to smelters and refiners in North and South America, and on hand or in process at refineries, (3) refined and rough copper in European and Japanese warehouses. In the years immediately after the war there were

also large stocks in the hands of the Allied Governments and in the form of scrap metal.

The second table supplies some more detailed statistics of the principal stocks. In these returns "American blister" includes all copper in first hands in North and South America which has not been refined and made available for delivery.

SUPPLIES AND CONSUMPTION OF COPPER. (Tons of 2,240 lbs.)

	Jan. 1st,	Jan. 1st,	Jan. 1st,	Jan. 1st,	Jan. 1st,	Jan. 1st,	Jan. 1st,	Jan. 1st,	Jan. 1st,	Jan. 1st,	Jan. 1st,
	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.	1929.	1930.
North and South America:— Refined	313,000 175,000 180,000	286,000 58,000	239,000 142,000	133,000 175,000	139,000 226,000	122,000 212,000	65,000 215,000	76,000 244,000	85,000 221,000	58,000 224,000	153,000 237,000
Scrap (approximate) U.K., Havre, Japan stocks	270,000 46,000	82,000 183,000 55,000	trifling 90,000 30,000	39,000	37,000	55,000	64,000	49,000	17,000	15,000	
Total	984,000	664,000	501,000	347,000	402,000	389,000	344,000	369,000	323,000	297,000	414,00
Production*	967,000	537,000	888,000	1,266,000	1,357,000	1,418,000	1,475,000	1,495,000	1,711,000	1,907,000	
Available supply Stock carried for- ward	1,951,000 664,000	1,201,000 501,000	1,389,000 347,000	1,613,000 402,000	1,759,000 389,000	1,807,000 344,000	1,819,000 369,000	1,864,000 323,000		2,204,000	
Consumption	1,287,000	700,000	1,042,000	1,211,000	1,370,000	1,463,000	1,450,000	1,541,000	1,737,000	1,791,000	
Price f (standard)	115 7 6	71 17 6	66 3 9	64 11 3	60 18 9	66 11 3	59 13 9	56 3 9	61 1 10	74 12 6	
Cents per lb. (electro)	19	123	133	143	123	14}	14	13½	14 ¹ / ₃	16#	

^{*} American Bureau of Metal Statistics.

WORLD'S PRODUCTION AS ESTIMATED BY THE AMERICAN BUREAU OF METAL STATISTICS. (Tons of 2,000 lbs.)

Country.	1916.*	1922.	1923.	1924.	1925.	1926.	1927.	1928.	1929.
United States Mexico Canada Cuba Bolivia Chile Peru Venezuela Europe Asia Australasia Africa Other countries	971.123 60,751 52,880 8,613 5,675 78,559 47,452 1,300 105,434 110,900 43,920 43,876 3,307	511,970 29,842 25,300 11,788 10,154 142,830 40,133 1,075 86,950 60,825 13,754 58,219 3,307	754,000 60,538 40,230 11,963 11,744 201,042 48,684 1,175 115,492 66,227 19,995 80,410 3,307	819,000 57,139 50,072 12,742 8,200 208,964 38,798 1,230 120,618 71,300 15,711 115,300 4,409	854,000 59,123 56,239 13,128 7,500 209,654 41,180 1,500 130,957 77,013 13,800 118,180 4,409	878,000 62,303 64,124 13,034 7,100 223,015 42,703 135,699 77,377 11,244 108,010 4,409	847,419 63,760 70,698 15,538 7,850 264,242 52,438 	935,199 72,579 96,634 18,869 7,500 319,549 57,830 } 	1,179,269 63,678 79,919 — 392,795 — 146,500† 82,281‡ 12,980 142,599
World's total	1,533,810	996,147	1,414,807	1,523,483	1,586,683	1,628,018	1,674,818	1,883,431	2,136,021§

^{*} War peak of production in United States was in 1916. War peak of world production was in 1917, the total being 1,580,475 short tons.

† Includes 36,000 tons estimated for the countries not detailed.

STOCKS OF COPPER.
(Tons of 2,240 lbs.)

Beginning of Month.	American Refined.*	American Blister * (and in process).	U.K. All kinds.	Havre.	Japan.	Total.
1921 Jan. 1922 Jan. 1923 Jan. Oct. 1924 Jan. April	286,000 239,000 133,000 113,000 139,000 107,000	58,000 142,000 175,000 240,000 226,000 212,500	11,646 16,655 26,780 28,453 31,030 30,852	5,968 4,138 3,345 3,891 1,867 5,281	37,500 9,300 9,072 5,954 4,405 5,300	399,000 411,000 347,000 391,000 402,000 361,000
July Oct. 1925 Jan. April July Oct. 1926 Jan.	100,000 122,000 122,000 109,200 81,500 61,500	216,000 209,000 212,000 233,000 223,500 220,000	36,515 37,387 38,419 44,276 47,984 51,285	10,225 7,885 7,180 8,341 6,389 9,942 3,013	8,600 9,000 9,992 7,743 5,832 5,015 5,288	371,000 385,000 389,000 403,000 365,000 347,000 344,288
April July Oct. 1927 Jan. April	65,200 67,148 59,014 62,622 76,340 91,640	214,600 233,813 245,974 235,656 243,871 235,150	56,047 51,701 50,967 39,029 34,636 28,089	4,701 11,670 10,682 8,650 6,797	3,624 3,129 3,468 5,500 5,330	360,987 369,754 351,457 368,997 367,006
July Oct. 1928 Jan. April July Oct.	86,036 77,226 85,084 77,939 52,507 46,260	230,021 220,104 220,836 216,536 224,727 228,328	22,032 17,659 10,912 9,092 7,957 8,574	3,333 1,720 1,236 1,980 1,189 2,333	5,000† 5,087 — 2,837	346,422 323,155 — 288,512
1929 Jan. April July Oct. 1930 Jan.	58,452 47,290 74,232 84,600 152,678	224,214 216,376 224,509 225,580 237,500	6,801 7,504 8,758 7,782 6,504	2,084 2,872 7,575 6,978 4,612	6,262 6,622 7,548 10,144 12,657	297,813 280,664 322,622 335,084 413,951
April July	228,571 282,812	238,392 229,045	7,070 7,118	5,547 6,225	10,147	489,727

^{*} Includes North and South America.
† Provisional.

On April 15th, 1929, Copper Exporters Inc. ended the speculative scramble of the previous few weeks by firmly fixing their quotation at 18 cents. For exactly one year this quotation remained in force, and was then reduced to 14 cents, on May 5th to 13 cents, and on May 7th to 12 50 cents, but on May 9th it was restored to 13 cents. Early in June further reductions

were made to 12 cents, and after successive reductions during July, II cents was reached on July 21st. Towards the end of August further reductions began, and by the end of September 10:10 cents was reached. At the beginning of April last, stocks of refined copper in North and South America totalled 228,000 tons as compared with 47,000 tons a year previously, while stocks in Europe continued to be negligible. (The corresponding figures for July 1st were 283,000 tons and 74,000 tons.) Consumption in 1929 may be estimated at some 50,000 tons in excess of 1928, but production in 1929 increased by nearly 200,000 tons. These are the essential features of the history of copper during the past sixteen months.

It is clear that a new chapter is beginning, and though it is still too close to admit of final assessment, it seems worth while to try and review briefly the nature and activities of the Copper Exporters to date. In 1917 the world, under the stimulus of war requirements, succeeded in producing 1,580,000 short tons of copper, and it was not until 1927-28 that world consumption surpassed this rate of production. In 1917 the U.S. produced 961,000 short tons, a figure which was not approached again until 1928, but was exceeded by no less than 244,000 short tons in 1929. With the exception of Japan and Australasia, practically every other producing country in the world, however, had nearly equalled if not exceeded its 1917 output by 1923, and has continued to expand ever since. In other words, a large potential output capacity in the U.S. was dormant until 1929, because it could not be produced at a 13-14 cent level, though the rest of the world was finding that level profitable. In the formation

[†] Japan only. § Partly estimated.

of Copper Exporters in 1926, various factors played a part. There was the very strong desire of the Americans to end what was in their eves the anomaly of world price-fixing by London when the U.S. had become by far the biggest producer and consumer. There was the belief that demand was inelastic, and that the excess productive capacity meant lower prices than were really necessary: some regulation of output and strict price control would therefore result in very considerable net advantages. There was also a widespread feeling that even if prices were appreciably raised, production in Europe and the other older sources of supply could not be expanded much further, owing to the approaching exhaustion of ore reserves, while African supplies would still take a long time to develop; hence what seemed to be required was careful nursing of the market, and the normal increase in consumption would sooner or later necessitate the recall into action of even the highest cost American mines. was under some such ideas that the combine was floated, and during 1927 and 1928 its conduct could not be seriously arraigned from the consumer's point of view. During 1928 consumption expanded in a most gratifying manner, and despite some increase from Katanga and South America, the U.S. production could be expanded by 100,000 tons, while stocks were worked down to a very low level (too low for convenience, as was soon demonstrated), and by January 1st, 1929, price had been raised to over 16 cents. This price level must be considered as highly remunerative to any reasonably wellconditioned concern, but it was not so high as to check buying, or to excite serious accusations of monopolistic extortion. Consumption, in fact, continued to expand rapidly and price to rise slowly, while mine output was freely increased, though naturally it took time to increase refined supplies. Then in March 1929 occurred the speculative scramble which was discussed at some length in our last Memorandum. The initial blame may perhaps be apportioned equally between the combine and consumers, but in our view the combine certainly mismanaged the affair, if stabilisation, and not monopoly profits, was their true objective. By the middle of April 1929 this episode was over, but it produced a totally new situation. The combine had found it impossible, if indeed it tried, to maintain restrictions on output in the face of the high level to which prices had been carried, and the American mines were all in full swing. In May, Anaconda and some other groups were openly proclaiming a resumption of 10 per cent. restriction, but many producers, having once regained their

freedom, were loath to obey the call. The real weakness of the combine's control over production, inevitable, of course, owing to the antitrust laws, was demonstrated, and the monthly figures showed little reduction until 1930, long after the period necessary for restriction of mine output to make itself effective. On the consumer's side there was an equally important change in the situation. The maintenance of the 18 cents price level could only be interpreted as clear evidence that the combine intended to try and make the world pay this definitely monopolistic price: in other words. that the policy of the combine was to finance the stocks which were inevitably piling up while restriction was being reintroduced, and to wait until demand revived at that price. Moreover, when there was some revival of buying last September, the Anaconda group broke away and endeavoured, though unsuccessfully. to obtain an even higher price. After the New York Stock Market collapse there was still no reduction in the combine's price, though it was now clear that the prospects for consumption had completely changed: on the contrary, the only result was still louder calls for more restriction. It was, in fact, clear that the combine had become a mere grasping monopoly, and that if stabilisation in the accepted sense of the term had ever been its true objective, it was so no longer. Meantime refined stocks continued to pile up as the world depression of trade spread and became intensified, until finally, last April, the combine accepted the inevitable.

An analysis of events in the above terms may be considered reasonably sound, but it is nevertheless inadequate, because it neglects the internal affairs of the combine. On this subject the true facts are known only to the inner circle of members, and the remarks which follow must be taken with considerable reserve. There are three big groups of American producers—Anaconda, the Morgan-Guggenheim (Kennecott Corporation, etc.) and the Phelps Dodge-Nicholls group, but the two last-named work in close liaison, and so there are really only two groups. Both these groups have their fair share of high-cost and low-cost producing units, and neither can obtain superiority over the other. It would take too long to review the evidence in detail, but it can be said with considerable certainty that, while the Morgan-Guggenheim interests have not been opposed to the general policy of price-control and restriction, they desired to see the price stabilised at the highest level which the consumer could be made to pay and to go on paying indefinitely, while Anaconda has wished to send prices.

soaring, irrespective of the ultimate effects. Rumour has it that Anaconda has been holding large blocks of shares which it desires to pass on to the public: hence their desire for a boom in prices, however transient. When Europe stampeded to buy in March 1929, it was playing into Anaconda's hands, and Anaconda's supremacy was still further increased. For the last eighteen months at least, it may be said that every move by the combine has been in the nature of a compromise; Anaconda, as the apostle of high prices, irrespective of the immediate cost or ultimate effects of the necessary output restriction, dragging after it the other groups of half-delighted, half-fearful producers, until finally the Morgan banking interests refused to finance any further accumulations of stocks, and abruptly called an end to such a game of folly.

The immediate future depends mainly upon the course of the world trade depression, and the degree to which the consumption of copper is affected. Production has been drastically curtailed in the United States, but even so, stocks continued to mount during the first half of the year, though there was a slight reduction in the August figure. This curtailment of production is undoubtedly in the main voluntary rather than enforced, though a large proportion of the reserve capacity cannot cover even direct costs at a selling price of II cents. (£5I per ton). But at the same time the present requirements of consumption could probably be produced at direct costs considerably lower

than II cents, and therefore there is no reason why the price should not fall even farther. Copper Exporters are, however, at present contriving to prevent a real collapse in prices such as has overtaken some commodities, and there are signs of a certain stability in the present position. Any further contraction in consumption may, however, make things too difficult for the combine, and a further fall in price is even now by no means impossible.

In copper production technique has recently made great strides, and the present excess capacity is mainly due to the introduction of new low-cost plants. The copper industry, more than most industries, has got to adjust itself to a new lower level of prices. Even if in the spring of 1931 consumption recovers its normal stride, it will take time to work off the accumulated stocks, and before the world needs increased production, there may well be time for a further expansion and development of low-cost sources of supply. Thus the centre of the world's copper production may shift with considerable rapidity away from the United States, while the establishment of two large new electrolytic refineries in Europe, and the development of African supplies, may in the not too distant future render Europe much less dependent on America. It is possible, therefore, that Copper Exporters will never again play so strong a hand, and it is certainly to be hoped that there will be no repetition of their history to date.

III.—TIN.

The total stocks of tin and tin-ore are made

up of :-

(r) The "visible supply" as defined by the monthly returns of the London Metal Exchange, namely, (a) stocks landing or warehoused in Great Britain, the United States and Holland, (b) tin afloat to Great Britain, the United States and Europe from the Straits, Batavia and Australia, and (c) tin afloat to Great Britain and the United States from China. Monthly returns of the "visible supply" are also compiled by Messrs. Ricard and Freiwald and by Messrs. A. Strauss and Co., each on a slightly different basis from that of the Metal Exchange. The figures given below are those of the London Metal Exchange.

(2) Stocks of tin and tin-ore in the Straits Settlements, the Dutch Indies, China and

Hong Kong.

(3) Stocks of tin-ore affoat from Bolivia and Nigeria to Europe and in course of smelting.

(4) "Invisible" stocks in the hands of consumers, etc.

Since the publication of the earlier issues of this Memorandum, the Anglo-Oriental Mining Corporation has undertaken the monthly preparation of somewhat elaborate statistics, of which some use has been made below.

(I) The Visible Supply.

It will be noticed that the "visible supply" figures, which are those commonly quoted, cover a wider field than that usually meant by "Stocks," since they include tin in transit which is in no sense available for consumption. It follows that the "visible supply" of tin can never fall to zero, or even fall below (say) 9,000—12,000 tons, unless a total breakdown of current supplies is impending from the sources of production. On the other hand, they do not include the total aggregate of tin and tin-ore in the widest interpretation. They represent a rather arbitrary compromise between pro-

spective supplies and stocks available for consumption. The result is that they are highly misleading from month to month, fluctuating with the chance dates of shipments from the East, etc., which have no real bearing on the position. Figures for stocks in the limited sense, *i.e.* landing or warehoused in the countries of consumption, will therefore be given separately, and also some material to correct the misleading inferences which might be drawn from the "visible supply" figures as to the short-period prospective supplies at any time.

AVAILABLE STOCKS OF TIN IN THE CHIEF COUNTRIES OF CONSUMPTION (U.K., U.S., AND HOLLAND).

(Tons of 2.240 lbs.)

End of Month.	1923.	1924.	1925.	1926.	1927.	1928.	1929.	1930.
Jan. Feb. Mar. April May June July Aug. Sept. Oct. Nov. Dec.	12,911 10,937 11,385 10,373 9,737 8,954 8,368 9,004 7,383 8,588 7,466 7,870	7,721 7,615	9,371 9,593 10,489 7,313 6,692 8,554 7,942 8,596 6,721 5,896 5,410 5,863	4,511 5,373 4,918 3,494 3,916 4,908 4,126 3,994 3,693 3,344 3,778 4,170	5,051 3,962 3,919 3,767 3,183 2,876 3,157 3,938 3,030 4,120 3,458 4,109	5,238 4,166 3,919 5,273 4,304 5,877 4,564 6,797 9,352 9,103	10,874 12,076 11,305 11,767 12,213 12,046 12,401 12,591 12,819 13,229 11,727 15,839	18,614 19,893 23,962 26,558 30,207 30,623

The distribution of these stocks at the end of each year was as follows:

December 31.	1923.	1924.	1925.	1926.	1927.	1928.	1929.
U.K U.S Holland	1,652	2,844	3,161 2,654 48	1,909	2,536 1,573 Nil	7,954 2,428 Nil	13,019 2,820 Nil

Since the normal consumption of tin is about 12,000 tons monthly, the supply stocks available for consumers in 1926 and 1927 amounted to about 10 days' consumption, as compared with a month's supply at the beginning of 1923; but by the middle of 1930 they had accumulated up to the substantial total of some ten weeks' supplies.

THE "VISIBLE SUPPLY" OF TIN. (London Metal Exchange figures.—Tons of 2,240 lbs.)

End of Month.	1923.	1924.	1925.	1926.	1927.	1928.	1929.	1930.
Jan.	25,765	24,372		16,787	15,342		24,237	
Feb.	25,157	21,835		16,239	14,221	17,645		
Mar. April	24,622		19,623	14,280	15,441	15,586		
May	22,110	19,711		15,516	13,849 14,655	15,001		
June	21,297			15,831	15,638		23,751	
July	20,019	20,161	19,857	13,777	15,377	18,022		
Aug.	18,754			13,352	14,487	18,456		
Sept.	19,864	20,233	17,642	14,379	15,083	19,924	24,556	40,150
Oct.	20,567	18,971	15,770	14,841	14,684	20,907	25,580	
Nov.	19,520		18,199	15,257	14,594	22,067	25,171	
Dec.	21,011	25,088	18,029	16,326	15,733	24,563	28,140	18.00

(2) Stocks in the East.

The main source of error in the figures just given as a true indication of the position is the fact that they neglect entirely the stocks of tin in the East, whence the bulk of the world's supplies are drawn. As described in earlier memoranda, these stocks were abnormally swollen from 1920 to 1925 by tin held mainly by the Straits and Dutch Indies Governments. under the Bandoeng Agreement. The last lots of this tin were sold before the end of 1924, but the trade figures show that some 3,000 tons were not shipped, and therefore did not enter into the "visible supply," until 1925. Apart from the disposal of these exceptional stocks, the trade figures indicate that other more normal stocks of tin and of ore in the Straits have varied as follows:

(Tons of 2,240 lbs.)

	Imports of Tin into the Straits.	Exports of Tin from the Straits.	Reduction of Straits Stocks.
1923	65,335	69,119	3,784
1924	74,109	79,940	5,831
1925	76,630	78,819	2,189
1926	74,362	76,474	2,112
1927	81,590	81,815	2,775*
1928	96,294	97,853	1,559
1929	104,490	102,019	2,471*

* Increase.

The imports into the Straits are in the form of ore, and are assumed in the Trade Returns to contain 72 per cent. of fine metal. As time has gone by, it has become apparent that the actual contents are slightly greater than this. Thus the reduction of stocks has not been quite so great as indicated above. Total stocks in the Straits, including ore, would appear to have been, roughly, as follows:

		Tons.		Tons.
End	of 1922	14,600	End of 1926	3 2,000
	1923	10,800	192'	7 5,000
	1924	5,000	1928	3 4,000
	1925	3,800	1929	7,700

Of these stocks, at the end of 1922, 13,600 tons were held under the Bandoeng Pool, in addition to 4,000 tons held in the Dutch Indies.

As regards the Dutch Indies, part of the supplies (the tin from Billiton) is forwarded regularly to the Straits to be smelted there. The rest (the tin from Banca) is smelted locally and shipped direct, mainly to Europe. These shipments are more irregular than the production, depending on the selling policy of the Dutch Government. This is a further cause of error in the visible supply statistics, though probably not to the extent of more than (say) 500-1,000 tons in any month.

As regards supplies from China, about half the production used to find its way to U.K. and U.S.A.; but the exports recently have been on only a small scale. Estimates of stocks, mainly in Hong Kong, are available irregularly.

The best available aggregate of tin supplies, apart from tin in the hands of smelters on the one hand and of consumers on the other, is given below. Apart from exceptional figures in isolated months, 13,000 tons is probably the lowest to which this total can fall, having regard to

the amount of tin necessarily afloat. Thus the surplus fell in 1926 almost to the minimum figure, but has since recovered to substantial proportions. Moreover, the true surplus in 1928 was probably a few thousand tons, and in 1929 several thousand tons, more than the figures given below, inasmuch as during these years a large amount was held privately by a "bull" pool which was operating with a view to sustaining the market price of the metal.

TOTAL STOCKS OF TIN.

(Tons of 2,240 lbs.)

End of Year.	1922.	1923.	1924.	1925.	1926.	1927.	1928.	1929	1930 (June 30).
Straits Pool Tin "Other Stocks Surplus Ore Dutch Indies Pool China" "Visible Supply"	13,600 500 500 4,000 1,500 25,300	9,500 1,800 500 2,000 1,400 21,000	3,000 2,500 500 1,000 25,100	3,300 500 500 18,000	1,750 250 600 16,300	1,350 3,650 300 15,730	1,235 2,765 — 300 24,550	4,725 3,000 	4,230 2,290 300 42,610
Grand total	45,400	36,200	32,100	22,300	18,600	21,030	28,850	36,150	49,430

(3) Bolivian and Nigerian tin afloat and with the smelters.

If we allow two months from the date of shipment from Bolivia to the time of delivery in refined form on the London market, some 5,000 tons of tin are normally thus in transit, but the actual figure may vary from (say) 4,000 tons to 8,000 tons. The corresponding variations for Nigerian tin in transit are on a much smaller scale. These fluctuations average out, of course, over a period of time, but may considerably affect the statistics of visible supply between one month and another.

(4) "Invisible" stocks in the hands of consumers, etc.

As stated above, there were in 1928 and 1929 some thousands of tons of "invisible" stocks held privately by a "bull" pool. Apart from such exceptional holdings, the most important influence in accelerating supplies and decreasing the aggregate of "invisible" stocks at all stages from the producer to the consumer is to be found in the development of a "backwardation" on forward tin as against spot tin, i.e. in tin for delivery in three months standing at a price appreciably lower than tin for immediate delivery. This means on

the one hand that the producers and smelters can gain the difference by hastening forward their supplies of refined metal, and on the other hand that consumers can save the difference by keeping their stocks as low as possible and covering their known prospective requirements by buying forward instead of keeping the actual metal on hand.

For short periods during the time of acute shortage in 1927 the "backwardation" sometimes reached or exceeded £12 per three months. The average figures over each year have been as follows:

	Average Price of Spot Tin.	Average Price of 3 months' Tin.	Spot Tin above (+) or below (-) Forward Tin.		
1922 1923 1924 1925 1926 1927 1928 1929 6 mos.	\$ s. d. 159 10 9 202 5 0 248 17 4 261 1 8½ 291 3 0½ 289 0 0 227 6 0 204 0 0	\$ s. d. 160 13 11 202 15 4 249 10 61 262 5 91 284 7 7 282 4 0 225 14 0 206 10 0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$		

The principal changes in the volume of production have been, approximately, as follows:

WORLD'S TIN PRODUCTION. (Tons of 2,240 lbs.)

	1923.	1924.	1925.	1926.	1927.	1928.	1929.
Malay States Dutch Indies Siam and Burma China Australia Nigeria S. Africa Cornwall Bolivia Elsewhere	39,500 29,000 9,000 8,000 3,000 6,000 1,000 29,500 1,500	46,500 32,000 9,000 7,000 3,000 6,000 1,000 1,500 31,500 2,500	48,000 31,500 8,000 9,000 3,000 6,000 1,000 2,000 32,000 4,000	48,000 31,500 8,000 6,500 3,000 7,000 1,000 2,000 32,000 4,000	55,000 35,500 9,000 6,500 3,000 7,500 1,000 2,000 34,000 4,000	64,500 35,000 10,000 6,500 3,000 9,000 1,000 2,500 40,000 4,000	69,500 34,000 12,500 7,500 3,000 10,500 1,250 2,750 43,000 4,000
Total	127,500	140,000	144,500	143,000	157,500	175,500	188,000

Production caught up with consumption towards the end of 1926, and then, after keeping about level with it for a year, took a leap ahead, which consumption, although of record dimensions in 1929, has found it impossible to keep up with, as is shown by the following approximate estimates.

CONSUMPTION OF TIN. (Tons of 2,240 lbs.).

	1925.	1926.	1927.	1928.	1929.
Great Britain United States Germany France Asia Other countries	25,000 76,500 8,000 11,500 10,000 23,500	18,500 78,000 5,500 11,000 9,000 24,500	23,000 72,500 15,000 8,500 9,000 27,000	33,000 79,000 9,000 10,500 9,000 27,000	35,000 89,000 13,000 12,000 7,000 25,000
Total	154,500	146,500	155,000	167,500	181,000

We estimate recent production and consumption of tin in the aggregate as follows:

(Tons of 2,240 lbs.)

Year.	Production.	Consumption.	Stocks at End of Year.		
1922	130,000	132,000	45,400		
1923	127,500	139,000	36,000		
1924	140,000	144,500	32,000		
1925	144,500	154,500	22,000		
1926	143,000	146,500	18,500		
1927	157,500	155,000	21,000		
1928	175,000	167,500	29,000		
1929	188,000	181,000	36,000		
1930 6 mos.	90,500	77,000	49,500		

It will be seen that the high prices which prevailed from 1921–27 stimulated a very substantial increase in output which, it is estimated, would have reached not less than 191,000 tons per annum in 1930 in the absence of restriction. Thus production caught up consumption in 1927 and exceeded it by 8,000 tons in 1928. In 1929, in spite of a consumption of record dimensions, especially in the United States, production was in excess by more than 500 tons a month. It was inevitable, therefore, that when the world-wide slump

came in 1930 there should be a crisis of the first magnitude in the industry.

In fact the consumption of tin held up relatively well. The tinplate industry maintained its activity better than most, and outside the United States, where the slump in the motor-car industry caused a great reduction in takings, the set-back was moderate. In the aggregate, consumption fell back to about the level of 1927. But in the new conditions of output this meant an excess production of at least 2,000 tons a month. On the top of stocks which had already, since the end of 1928, grown to a total in excess of what was normal or necessary, this meant a steep fall in prices. By the middle of 1930 tin was selling at a price of about £135 per ton, which two years before would have been thought an impossibly low figure. At the end of September 1930 the price was below £130.

The position was complicated by the existence of the substantial speculative holding which had been built up in 1928–29 at much higher prices on the hands of persons who were also interested in the metal on the production side. Under these auspices feverish efforts were made to organise schemes of voluntary restriction on the part of producers, and a body known as the Tin Producers' Association was formed.

In April 1930 it was alleged that a restriction scheme had been agreed upon which would have the effect of reducing production by at least 2,200 tons a month, and perhaps by as much as 2,500 tons a month. But no such results were realised. Whilst Bolivian and Nigerian shipments showed some falling off, Malayan deliveries of tin remained at a figure which was virtually unabated. The statistics, which were adduced to show that, in spite of appearances to the contrary, the promised restriction was actually in force, commanded no confidence. If they were correct, it would follow that unrestricted production would have been appreciably greater than the 191,000 tons estimated above.

In July 1930 a more drastic, and also a more genuine, scheme was arranged by which a number of producers agreed to close down altogether for a period of two months, whilst others were to curtail output for the rest of the year. Officially this scheme is supposed to cut output by 17,000 tons between July and December

1930.

Even so, however, whilst stocks should cease to mount higher, the measures proposed are not calculated to make much of an inroad into existing stocks. In the absence of restriction production would probably exceed current consumption by fully 2,200 tons a month. Therefore, taken at its face value, the restriction scheme would only bring stocks at the end of December 1930 to a figure of 3,000 tons less than at the end of June 1930. Allowing for time-lags, etc., the effect is likely to be still less than this, unless in the meantime consumption revives, which is not to be depended on. It would seem, therefore, that for any important price recovery, tin, like other commodities, must await a general revival of trade.

Failing this, low prices may do the work of restriction more surely than voluntary arrangements. Recent results show that most sound Malayan Dredging Companies can produce tin below floo per ton, and some of them much

below. These companies will not, therefore, be keen to continue closing down or restricting indefinitely so long as tin sells at £135 to £145 a ton. On the other hand, there seems to be fairly solid evidence that a price around £135 a ton seriously embarrasses producers in Nigeria, Australia and Cornwall, and goes a long way towards knocking out the majority of Bolivian producers. Thus the cost of production in Bolivia seems to hold the key to the position. For Bolivia has been producing some 40,000 tons a year. If, therefore, the majority of Bolivia producers begin to lose money when the London price falls below £150 a ton, as seems on the whole probable, equilibrium might be found, pending a general trade revival, somewhere in the neighbourhood of £135 even without organised restrictions. But this would be a disaster for Bolivia.

If we grant that Bolivian and Nigerian output will be needed in normal times, and that tin-mines are a wasting asset even for the cheapest producers, and, further, that a 20 per cent. restriction will raise the price by at least 20 per cent. (which is quite plausible), there may remain, nevertheless, a valid case for producers as a whole in favour of organised restriction.

IV.—LEAD.

In common with many other commodities, the production of lead showed a considerable expansion in 1929. The following figures issued by the American Bureau of Metal Statistics apply to the principal lead-producing countries of the world, which in 1929 furnished 88 per cent. of the world's total lead output.

PRODUCTION OF LEAD. (000 tons of 2,240 lbs.)

	1924.	1925.	1926.	1927.	1928.	1929.
United States Mexico Canada Spain and Tunis Italy Australia Burma Germany	525 159 75 137 22 126 52 44	590 181 111 135 16 147 48 49	621 197 126 145 23 149 54 75	601 245 139 137 23 165 66 80	580 233 152 121 21 163 78 86	618 245 142 103 22 173 80 109
Total for above	1,140	1,277	1,390	1,456	1,434	1,492

The American Bureau's figures for world production in recent years are as follows:

	(00	00 tons
1924		1,298
1925		1,464
1926		1,570
1927	***************************************	
1928		1,649
1929		1,725
1930 ((6 months)	[829]

In spite of the expansion in output and signs that production was in excess of requirements, prices were well maintained during 1929 up to the time of the general break in the autumn, and the average for the year was well above the 1928 figure. The position was undoubtedly influenced by market control, since in August 1929 negotiations for the formation of a Lead Producers Association were successfully concluded. Even after the autumn break, prices were pegged successfully for short periods, but subsequently have had to move down with the general trend of prices.

There were signs of accumulating stocks in the U.S.A. in the middle of 1929, but there was no significant change in the published figures for the U.K. until the beginning of 1930. The U.K. figures for official stocks have never, of course, represented anything like the total reserves in the country and have not the same value as the official copper and tin statistics. Reports this year have emphasised the piling-up of stocks in private warehouses and consumers' yards. Nevertheless, on the assumption that there is some uniformity in the relation of official stocks to the general reserve, the huge increase in the official figures would imply a very weak position of the metal. It is asserted, however, that the figures have been swollen by the action of the Producers Association in holding reserves in this country rather than at

the producing points, a change of practice which entails the transfer of normal reserve supplies from the refineries to this country. The further suggestion that the smaller Continental demand has led to larger shipments to England, specially from America, is not inconsistent with the movement shown by the U.S. stocks statistics. So far, the control of the market has been fairly effective, and there is some justification for the statement that the statistical position of lead is more sound than that of other metals.

STOCKS OF LEAD IN U.S., MEXICO AND U.K. (Tons of 2,240 lbs.)

Beginning	1927.			1928.			1929.			1930.		
of Month.	U.S. and Mexico.*	U.K.†	Total.	U.S. and Mexico.*	U.K.†	Total.	U.S. and Mexico.*	U.K.†	Total.	U.S. and Mexico.*	U.K.†	Total.
Jen Feb March April June July Sept Oct Nov Dec	113,400 120,300 124,800 130,200 143,600 156,400 152,000 147,800 145,400 143,000 139,200 139,000	1,677 2,516 2,596 2,732 2,918 2,467 2,436 2,165 2,091 2,136 2,436 2,278	115,100 122,800 127,400 132,900 146,500 154,400 150,000 147,500 141,600 141,300	139,500 140,600 149,700 154,800 143,900 142,300 146,200 141,800 140,200 138,800 136,400 140,600	2,014 1,931 1,975 1,873 1,861 1,383 1,281 1,383 1,326 977 675 400	141,500 142,500 151,700 156,700 145,800 143,700 147,500 143,200 141,500 139,800 137,100 141,000	144,100 139,400 143,400 141,200 140,000 144,800 155,000 155,000 156,600 149,300 144,400	917 1,586 1,403 1,304 1,305 945 779 773 658 443 422 368	145,000 141,000 144,800 142,500 141,300 145,700 155,800 157,500 151,000 149,700 144,800	135,300 133,400 125,700 128,900	2,036 4,466 6,684 6,845 7,626 7,403 7,366 6,991 5,720 6,227	137,300 137,900 132,400 135,700

^{*} Stocks of ore, matte, base bullion and refined lead in the hands of those concerns which report to the American Bureau of Metal Statistics.

† Metal Exchange figures.

V.—SPELTER.

In spite of the restriction scheme operated by the European Cartel, the output of spelter showed a further increase in 1929, and at the end of the year the Cartel was in danger of breaking up. According to Rudolph Wolff & Co., the world's output of virgin spelter has been as follows:

WORLD OUTPUT OF VIRGIN SPELTER. (000 tons of 2,240 lbs.)

1921	452	1 1925	1.132
1922			
1923	960	1927	1,318
1924	998	1928	1,401
		1929	1.440

The same authority gives the following figures for production of spelter by countries which furnished about 90 per cent. of the world's output.

PRODUCTION OF SPELTER. (Tons of 2,240 lbs.)

	1924.	1925.	1926.	1927.	1928.	1929.
United States Canada Belgium Germany (including Polish Silesia) Australia Great Britain France	460,000 25,000 160,000 129,000 * 44,000 53,000 59,000	513,000 38,000 171,000 159,000 47,000 59,000 67,000	570,000 55,000 190,000 190,000 48,000 27,000 68,000	548,000 66,000 199,000 234,000 50,000 78,000	553,000 73,000 205,000 256,000 49,000 55,000 95,000	561,000 77,000 197,000 266,000 52,000 59,000 90,000
Total for above Countries	930,000	1,054,000	1,148,000	1,225,000	1,286,000	1,302,000

^{*} Probably under-estimated.

Monthly statistics are available of stocks in public warehouses in the United States and in the United Kingdom as given below. These figures show that from the beginning of the second half of 1929 a rapid and serious accumula-

tion of stocks occurred which is still unchecked. The price of the metal has fallen from the high point of £29 in March 1929 to under £16 at the present time.

U.K. AND U.S. STOCKS OF SPELTER.

(Tons of 2,240 lbs.)

End of	1927.			1928.			1929.			1930.		
Month.	U.S.	U.K.	Total.	u.s.	U.K.	Total.	U.S.	U.K.	Total.	U.S.	U.K.	Total.
Jan Feb March April May June July Aug Sept Oct Nov Dec	26,710 29,420 32,380 36,800 37,550 39,170 35,120 30,890 30,610 32,340 35,120 36,390	1,260 1,061 857 1,188 1,052 1,524 1,231 966 1,017 614 1,160 679	27,970 30,480 33,240 37,990 38,600 40,690 36,350 31,860 31,630 32,950 36,280 37,070	37,650 36,900 37,080 39,970 40,400 39,710 37,700 39,660 42,800 41,140 41,570 40,590	1,063 1,565 791 454 832 1,236 916 1,335 1,343 671 1,486 1,757	38,710 37,470 37,870 40,420 41,230 40,950 38,620 41,000 44,140 41,810 43,060 42,350	40,550 36,250 33,900 30,870 30,200 32,970 39,390 42,710 47,640 51,000 66,300 69,000	1,717 1,349 872 897 1,253 910 2,193 3,419 3,516 3,535 2,401 4,440	42,270 37,600 34,770 31,770 31,450 33,880 41,580 46,130 51,160 54,540 68,700 73,440	78,510 80,980 83,980 86,120 91,780 97,840 104,800 109,500	6,075 5,669 5,842 5,838 7,969 10,233 12,334 13,149 12,620	84,590 86,650 89,820 91,960 99,750 108,070 117,130 122,650

During this year continuous efforts have been made to reconstitute the Cartel and to secure co-operation with American producers. Agreement was reached at Ostend in July. Under this arrangement, which is to last for two years in the first place, production quotas have been fixed based upon 1927–30 output in the case of European smelters and upon productive capacity in the case of some of the overseas countries. Of the total world figure thus obtained, European producers will receive 77 per cent. and overseas producers 23 per cent. A cut of about 30 per cent. will

be made on this basis, but this may not involve much reduction on recent actual output. The producers concerned represent about 87 per cent. of the world's capacity, and negotiations are to be undertaken with the remaining 13 per cent. The announcement of this agreement had a temporary sentimental effect on prices, but the improvement was soon lost. In view of the weak statistical position, the expressed intention of the Cartel not to force up prices is perhaps superfluous, and the prospects of successful operation of the scheme are still very remote.

VI.—RUBBER.

The stocks of Rubber are held mainly:

- (1) On plantations and with dealers within the restricted area of Malaya.
 - (2) In Singapore and Penang.
 - (3) Afloat.
 - (4) In London and Liverpool.
 - (5) In U.S.A. warehouses and factories.

In addition relatively insignificant stocks are held:

- (6) In Ceylon and India.
- (7) In Dutch East Indies.
- (8) In Para (Brazil).
- (9) In Amsterdam and Antwerp.

	End of:	United Kingdom.*	United States.†	Singapore and Penang.‡	Ceylon and India.	Dutch East Indies.	Para (Brazil).	Amsterdam and Antwerp.	Afloat.	Approx	imate Total.*
1921	June Sept. Dec. March June Sept. Dec. March June Sept. Dec. March June Sept. Dec. March June Sept. June Sept. Dec. March June Sept. Dec. March June Sept. Dec. March June Sept. Dec. Sept. Dec. June Sept. Dec. Sept. Dec. Dec.	56 80 81 79 64 68 75 70 65 54 36 23 7 7 7 16 28 42 59 70 71 72 66 60 41 34 23 32 36	76 52 90 87 101 90 73 70 60 56 63 55 40 45 74 61 60 62 72 86 89 98 100 114 90 66 101 90 66	35 40 55 21 46 27 38 21 20 20 19 17 16 20 18 19 26 28 22 25 21 18 15 34 29 32	? ? ? 5 ? 000050000555555555 44333344344555444445445544444544	? ? ? 9 ? 10 0 10 17 5 5 3 5 5 7 7 8 7 7 7 6 6 5 5 5 5 4 4	? ? 6 ? 9 ? 0 0 8 9 2 5 1 1 5 0 8 1 5 0 7 2 2 2 3 3 4 3 4 3 3 3 3	? ? ? 1.0 ? 1.2 2.5 1.12 0.6 0.1 0.2 0.2 0.3 0.2 0.8 1.15 1.5 1.5 1.1	37 37 45 48 52 43 52 54 53 59 63 74 62 67 63 74 102 86 76	(204) § (209) § (271) § (263) §	219-229 224-244 286-306 249 278 244 254 208 196 181 155 129 141 182 183 193 213 213 259 273 263 271 272 270 222 206 239 261 248
193	Sept Dec March June	55 77 91 110	84 105 145 151	32 33 45 41	5 6 6 5	4 4 5 5	3 3 3	2 2 2 2 2	94 91 96 77		280 321 397 394

^{*} Including an estimate of stocks in private warehouses from 1923 to June 1927. The true totals for 1920-1922 were certainly higher than the figures shown, and should perhaps be increased by 10,000 tons in 1920, and by 15-20,000 tons in 1921 and 1922. From Sept. 1927 the figures are the total published stocks in London and Liverpool.
† Returns cover 90-95 per cent. of the whole.
‡ Including Wellesley, Dindings and Malacca from Sept. 1927.

These figures in brackets give the actual total of stocks quoted.

Prior to 1928 no figures were available for (1). This omission became important during the interval between the announcement that restriction was to come to an end and its actual withdrawal. Accordingly, a census of stocks in Malaya was then instituted. Use of this has

been made in the following table, which is the best approximation to the actual stocks in existence which can be made, if an addition of approximately 15-20,000 tons is made for stocks in Ceylon, Dutch East Indies, Para and Continental European Ports.

(1,000 tons.)

	Jan. 1st,	April 1st,	July 1st,	Oct. 1st,	Jan. 1st,	April 1st,	July 1st,	Oct. 1st,	Jan. 1st,	April 1st,	July 1st
	1928.	1928.	1928.	1928.	1929.	1929.	1929.	1929.	1930.	1930.	1930.
On estates in Malaya With dealers in Malaya , in Straits In U.K. In U.S Afloat to U.S. † Elsewhere Afloat †	30	30	45	61*	26	21	23	23	25	22	23
		—	13	10*	12	13	15	16	16	17	14
	26	20	18	15	33	29	30	34	33	39	37
	66	60	41	34	23	32	36	55	77	91	110
	100	114	90	69	66	101	92	84	105	145	151
	48	39	40	49	69	56	46	49	62	64	59
	19	24	19	25	33	30	30	45	29	32	18
Total	289	287	266	263	252	282	272	306	347	410	412

These figures include an estimate of 15,000 tons for the unknown stocks in Ceylon, Dutch East Indies, Para, and at Amsterdam and Antwerp. This has been done in order to secure a more comparable series.

^{*} Probably these figures should be much greater. See comment in Memorandum 29.
† These figures are shown separately because the "Afloat to U.S." figures are reasonably accurate, while the latter are rough estimates only.

The following are estimates of production * and consumption † of crude rubber in recent years (1,000 tons):

	Production.	Consumption.	Apparent Increase or Decrease in Stocks.	Recorded Change in Stocks.
1919	398 354 300 400 407 428 517 620 605 650 860	330 310 265 390 435 470 560 545 590 680 795	+35 +10 -28 -42 -43 +75 +15 -30 +65	+15 $+62$ -52 -73 $+1$ $+77$ $+23$ -33 $+82$

During 1929 rubber once more did the unexpected, and not one of the experts was even remotely correct in estimating either production or consumption. The highest estimates for production ranged between 700 and 720 thousand tons. By July it was clear that shipments from Malaya were exceedingly heavy, but it was argued that this was primarily due to "flush" production after the enforced resting of the trees during the restriction years. But month after month the shipments showed little reduction, and by the end of the year had exceeded expectations by more than 100,000 Shipments from Ceylon were also nearly 20,000 tons in excess of expectations. The same rates of shipment continued during the first three months of 1930. In view of the fact that full tapping has now been in operation for two years, all explanations in terms of flush production are becoming very thin. The true explanation is that normal yields on estates have been greatly, and more or less permanently, increased. During restriction, nearly all estates maintained a labour force in excess of their actual requirements, hoping each quarter for a greater percentage release, and this surplus labour was used to improve drainage, soil conservation, aeration of the ground, etc. Systems of periodic tapping have been introduced in place of the continued daily tapping of the past. In addition, tapping tasks have been greatly reduced, and thus tapping is concluded at a much earlier hour, with consequent greater yields, while the actual tapping is less hurriedly done and so bark consumption is smaller. In these and many other ways, the normal yield has been greatly increased, and the falling off of shipments in April and May this year is mainly due to climatic conditions producing an unusually

heavy leaf-fall, while the June figures reflect, of course, the results of the tapping holiday during May. Some small part of the huge yields on estates in 1929 may have been due to climatic conditions—so little is really known about the rubber tree that this cannot be with safety ignored—but the indications are that the increased yield will be more or less permanent. The increased yield on small-holdings (i.e. estates under 100 acres) is even greater than on the larger estates, and it is said that the native has been consuming his bark at a rate which will not permit sufficient time for its renewal. The general opinion of European planters is that there will be a big fall in native output by the end of this year, but some persons who are specially qualified to speak on this particular subject affirm that while this may be true on the basis of European methods of cultivation, the native will continue to make his trees yield at very nearly the present rate: and the planter has been so continuously wrong about native rubber that it will be rather surprising if he is right this time! The outlook is for very little if any reduction in Malayan output.

Production in 1929 was therefore approximately 150,000 tons more than was anticipated. Fortunately consumption followed suit, though nothing like so strongly. Consumption in the U.S.A. increased by only 30,000 tons, though this must be considered good in view of the huge increase of 70,000 tons during 1928. But the new and most satisfactory feature was the increased takings by the rest of the world, and in particular by Europe. Doubtless this represents some rebuilding of manufacturers' stocks, but a total world increase of over 100,000

tons was most satisfactory.

The excessive increase of production involved a large addition to stocks by the end of 1929, and a further jump of no less than 60,000 tons took place during the first quarter of this year. After climbing back to IId. and higher in the early spring of 1929, the price started declining again, and with a sharp break after the Wall Street crash had reached a level of 7d.-8d. by the end of the year. This level was held until the middle of May 1930, buoyed up to some extent by the May tapping holiday. But the lack of any immediate results from this expedient, and the positive evidence of reduced rubber consumption and of the low estimates of current motor-car production in the United States, sent the price to 6d. in mid-June. For the next three weeks, the negotiations between British and Dutch producers with a view to a definite restriction scheme postponed a further decline, but when the latter cast 40 per cent. of their

^{*} I.e. net exports as reckoned by the R.G.A.
† Estimated world absorption by manufacturers.

total votes against restriction, it became obvious that little was to be hoped for in that direction, and the price began dropping again until in the first week of August it passed below fivepence, and in September below fourpence. As with certain other commodities, the price of rubber now reflects the unwillingness or the inability of merchants and speculators to carry additional stocks, and there is no real reason why the price should not temporarily go even lower. Productive capacity is not seriously out of adjustment with the trend of consumption, but consumption has declined sharply in the United States. rest of the world was still buying in increasing quantities during the first quarter of this year a somewhat striking fact, even if later statistics show the reverse. But nothing can, of course, outbalance the decline in the United States, and the outlook for the future almost wholly depends on the recovery of American consumption. So long as prices remained above $6\frac{1}{2}d$., very few estates were losing money, but certainly an appreciable proportion is being produced at a loss with the price below 5d. If the recovery of American consumption is long delayed—and there are no signs of recovery yet a good many estates will close down in, say, six to nine months' time. A unanimous demand by producers on the British and Dutch Governments for restriction on the lines of the Stevenson Scheme seems most unlikely to materialise, for some of the most influential Dutch producers, including the Amsterdam Trading Company, have lately reiterated their opposition to restriction, at least until the high-cost, less efficient producers have been forced out of existence, while a recent circular by the Dunlop Company suggests that the low-cost British producers are not altogether sorry that restriction is off the map. If restriction comes at all, it will probably be enforced by the Governments on their own initiative as a remedy for the unemployment problems which will result from any large-scale abandonment of estates. Conversations have recently been proceeding between the Governors of Malaya and Java, but though

Malaya is keen enough, Java naturally adopts the attitude of Holland, and the British Government will certainly not move without the Dutch, at any rate until conditions have proved to be as bad as the most pessimistic fear. From the consumer's point of view, the trouble is not the possible disappearance of some high-cost capacity, but the prevention of any addition of new low-cost capacity. While the consumer would gain little if restriction preserved this high-cost capacity, it is to be hoped that the price will not stay low too long, or the ultimate result will be another boom unless consumption greatly alters its trend.

One other feature of the position requires Even the low price of brief mention. crude rubber in 1929 has not ousted reclaimed rubber to any appreciable extent. American manufacturers are now firmly convinced of the utility of reclaimed for certain purposes, and have got accustomed to using a certain percentage in their compounds. Reclaimed has made a definite place for itself in commerce, and probably, unless the price of crude remains well below sixpence, the U.S.A. will continue to use nearly one-half as much as they do of crude, while reports indicate that European manufacturers are more inclined to follow this lead. It will be interesting to see whether even at threepence crude will oust reclaimed rubber to any appreciable extent. The following table illustrates these remarks:

UNITED STATES CONSUMPTION OF CRUDE AND RECLAIMED RUBBER.

	Crude Rubber, 000 Long Tons.	Reclaimed Rubber, 000 Long Tons.	Reclaim-Crude, Per Cent.
1919 1920 1921 1922 1923 1924 1925 1926 1926 1927 1928 1929	202 196 171 283 305 340 385 358 373 442 466	73 75 41 54 75 78 137 164 189 223 227	36-3 38-4 24-4 19-2 23-5 23-3 35-0 50-8 51-0 48-6

VII.—SUGAR.

In the case of this commodity it is necessary to restrict ourselves to "visible supplies," accurate estimates of stocks held up by producers in the fairly numerous different sources of supply not being available, with the important exception of Cuba. Statistics of stocks in the interior of Cuba are now available since 1926, and the carry-over of these stocks has recently been such as to make a considerable addition to the "visible" carry-over. With this deficiency made good, the limitation to "visible"

supplies is not so serious as it would be in the case of many commodities, because, on the one hand, sugar being a semi-manufactured product, the agricultural producers send the bulk of the output forward to the centrals as soon as it is available, and, on the other hand, since in most countries it is a dutiable commodity, invisible supplies on which duty has been paid are not likely to be larger than convenience dictates.

The following table shows the distribution

of stocks in the seven most important European countries, and the total for Europe. This, of course, is predominantly beet sugar, and hence the stocks reach a maximum about the beginning of the calendar year, and a minimum in October. The remaining columns show stocks in U.S. ports, Cuba ports, and in the interior of Cuba. These are almost exclusively cane sugar, since the beet sugar crop of the U.S. is

marketed internally. The harvesting of the Cuban crop is usually completed in May, and hence the grand total in the last column shows a somewhat different seasonal variation from the total for Europe, though the minimum is much the same, since by October the bulk of the Cuban supply has normally passed through the ports to the refiners.

TABLE I.
DISTRIBUTION OF SUGAR STOCKS.
(1,000 tons.)

Ве	eginning of Month.	Ger- many.	Czecho- Slovakia.	France.	Holland.	Belgium.	Poland.	United Kingdom	Total Europe.	U.S. Ports.	Cuba Ports.	Cuba Interior.	Grand Total.
1925	Jan	977 591 269 17	769 494 235 36	468 373 158 51	195 86 66 17	228 166 83 18	237 171 93	162 192 357	3,036 2,073 1,261	32 128 277	42 860 1,095	=	=
1926	Oct. Jan. April July	1,207 926 515	934 680 345	487 325 197	170 164 134	223 149 61	289 206 108	300 432 514 490	439 3,742 2,964 1,850	135 76 208 377	594 132 1,193 1,328	997	4,552
1927	Oct. Jan. April July	79 1,176 855 535	44 611 413 178	45 547 393 269	63 238 172 58	18 137 105 71	22 291 189 98	371 380 362 411	642 3,380 2,489 1,620	216 181 219 259	603 70 1,324 1,170	458 12 — 1,041	1,919 3,643 4,090
1928	Oct. Jan. April July	80 1,231 889 502	9 846 623 292	67 587 409 221	29 192 146 92	14 183 142 102	293 200 121	258 277 320 310	461 3,591 2,729	183 179 315 544	672 218 1,203	464 74 1,195 960	1,780 4,062 5,442 4,303
1929	Oct	101 1,457 1,390	47 690 646	62 630 626	33 261 260	25 221 198	14 420 416	136 276 360	1,640 418 3,955 3,896	343 159 144	1,159 630 125 477	459 32 517	1,850 4,271 5,034
	March	1,300 1,146 983 819 644	602 522 399 320 247	564 473 402 349 288	247 229 213 205 186	190 171 160 146 123	390 345 281 218 183	325 314 250 220 163	3,618 3,200 2,688 2,277 1,834	271 418 553 703 673	949 1,298 1,511 1,440 1,299	950 1,274 1,406 1,170 993	5,788 6,190 6,152 5,590 4,799
	Aug. Sept. Oct. Nov.	411 211 103 486	155 92 34 362	242 203 130 271	149 101 73 126	93 69 36 53	123 80 34 161	125 100 180 241	1,298 856 590 1,700	645 608 926 879	1,051 740 504 327	832 600 510 395	3,826 2,804 2,530 3,301
1930	Dec. Jan. Feb. March	1,305 1,565 1,478 1,372	743 717 643 592	502 669 666 598	226 263 239 229	157 197 185 173	375 531 547 496	280 400 422 378	3,588 4,342 4,180 3,838	793 769 684 645	255 182 312 815	310 180 357 850	4,946 5,473 5,533 6,148
	April	1,240 1,103 941 750	518 431 356 284	553 490 449 385	220 211 203 175	160 146 131 109	426 347 297 254	315 232 207 187	3,432 2,960 2,584 2,144	578 638 784 666	1,412 1,755 1,702 1,632	1,560 1,945 1,885 1,714	6,982 7,298 6,955 6,156
<u></u>	July	130	207	303	110	103	207	101	2,177	000	1,002	1,111	0,100

TABLE II.
SUPPLY AND CONSUMPTION OF SUGAR.
(Tons.)

	1920-21.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.	1929-30.*
Stock carried over on Sept.										
Ist European beet	1,600,000	2,400,000	1,180,000	1,267,000	982,000	1,612,000	2,657,000	2,439,000	2,518,000	2,804,000
crops	3,671,788	4,054,282	4,735,500	5,057,800	7,077,800	7,453,000	6,860,000	8,031,000	8,369,000	8,143,000
crops	1,004,019 12,081,831	930,121 12,679,948	649,000 12,691,500		1,010,400 15,501,400	836,900 16,293,700	829,000 15,901,000	965,000 16,330,000	967,000 17,831,000	1,032,000 17,611,000
Total Deduct visible supplies at	18,357,638	20,064,351	19,256,000	20,965,900	24,571,600	26,195,600	26,247,000	27,765,000	29,685,000	29,590,000
end of season (Sept. 1st)	2,400,000	1,180,000	1,267,000	982,000	1,612,000	2,000,000	2,439,000	2,518,000	2,804,000	4,200,0001
Total con- sumption	15,957,638	18,884,351	17,989,000	19,983,900	22,959,600	24,195,600	23,808,000	25,247,000	26,881,000	25,390,000

^{*} Crop figures are partly provisional estimates at present.

[†] Provisional.

The tables on p. 21 give a very rough idea of world stocks, production, and consumption in recent seasons, and the adjoining table shows consumption during recent years by this country and the United States, which between them account for an extraordinary proportion of the exported sugar.

TABLE III.
U.K. AND U.S.A. CONSUMPTION OF SUGAR.

	Consumption (raw values—tons).						
Year.	United Kingdom.	United States.					
1922 1923 1924 1925 1926 1927 1928 1929	1,748,177 1,602,029 1,706,661 1,817,869 1,776,766 1,681,351 1,849,755 1,952,034	5,476,500 5,141,000 5,220,000 5,925,000 6,098,200 5,695,700 5,960,210 6,248,380					

While the last Memorandum was in the press, the whole sugar situation was changed by the establishment of a Single Selling Agency in Cuba to take over the unsold balance of the 1928–29 crop on September 1st, and to dispose of the entire 1929–30 crop. The agency was to take the form of a compulsory co-operative institution, but pending its formation the Export Corporation was revived as a temporary selling committee. The objectives of the scheme may be said to have been threefold:

(I) To prevent pressure on the market by sellers weak because in urgent need of cash, and, by holding back a certain tonnage, to give consumption a better chance to catch up supplies,

thus raising the world price of sugar.

(2) To obtain for Cuba as much as possible of the 44 cents United States tariff preference by restricting supplies to the United States to the necessary extent (i.e. in the hope that the addition to the supplies of the rest of the world would not depress the world price so greatly as to lose on the swings what might be gained on the roundabouts).

(3) By thus raising the price in the United States market, to placate the U.S. domestic producers and induce them to modify their

agitation for a higher tariff.

During September and October 1929 the Single Seller pursued a waiting policy in order to allow stocks of uncontrolled sugar in dealers' hands to reach their final destination. This took longer than was probably anticipated, and there were still appreciable supplies available from this source until December. The New York market was in general carefully nursed, and Cuba was obtaining a substantial proportion of the tariff preference, though this and

the attempt to force a 2 cent price from Europe undoubtedly resulted in a much larger carryover than was wise or even really necessary. But the ability to hold back supplies of the coming crop clearly depended on the provision of satisfactory arrangements for financing producers, and even the normal methods of financing were profoundly disturbed, since the merchants who made advances against the growing crop could not be given any assurance as to when the sugar could be sold, the sole power to sell being in the hands of the Co-operative Export Agency. As time went on, it became clear that the Export Agency was finding it difficult and even impossible to make satisfactory financing arrangements. The grinding of the new crop was prohibited by Presidential decree until January 15th, but when the new crop sugars became available just as the outlook for consumption was becoming daily worse in view of the onset of the world trade depression, the Export Agency found that prices still continued to decline even when it left the market almost completely alone. At the end of January sales began to be made by the Agency at 2 cents c. and f. New York with a guarantee that this would be the Agency's minimum price for a given period. The Agency appear to have staked everything on their ability to hold the price at 2 cents, for at the end of February they announced this as their minimum price throughout March. The result was virtually a cessation of business with the United States. Meantime, as grinding progressed, the problem of financing became more and more acute, especially for the Cubanowned mills, which have not the same resources as those in American ownership. Rumours of the impending dissolution of the Agency became rife during March, and eventually a general meeting of the members was called to consider the situation. On April 3rd this meeting voted to continue the scheme by 12,918 to 11,139 votes. But this margin was obviously too narrow to be of practical use, and a fortnight later a second meeting was called, which voted heavily in favour of immediate dissolution. The Agency had succeeded in selling little more than one-tenth of the 1930 crop even at prices which averaged an equivalent of about 13 cents c. and f. New York.

The collapse of the Agency was the signal for a fresh break in prices and a subsequent slow decline. During May the long-drawn-out battle over the U.S. tariff was in its concluding stages, and the resulting uncertainty was blamed for this decline. But it was really having the reverse effect, for refiners were building up their stocks in anticipation of the

expected increase in the duties, and when the tariff was passed and put into operation, they proceeded to work off these stocks, and their demand for fresh supplies temporarily declined below their current rate of melting. During June, Cuba could sell little sugar at all in New York, as the demand was mostly met by the holders of sugar which had paid the old duty and who now sold freely without any attempt to add the new higher rate of duty, counting themselves lucky to have such a chance of liquidation. In July business with Cuba was resumed at a level of 1.25 cents, but only those producers who can hold out no longer are accepting such prices. With the rest of the world Cuba did little better business, and on July 1st stocks in Cuba amounted to 3½ million tons out of a total crop of 4.7 million tons.

A price level of 1½* cents is, of course, far below the costs of the very cheapest producer. It represents not so much a serious excess of productive capacity, as the unwillingness of merchants and middlemen to hold stocks on the requisite scale. They have lost so much and so often by the decline of price below what seemed an impossibly low level, that they have virtually declined to hold stocks at all, and this function has been thrown back upon the shoulders of producers. The same thing has happened in Java, where the bulk of the crop is

usually sold long before the harvest is complete. World production in 1929–30 has been approximately the same as world consumption in 1928-29, and it cannot be said, therefore, that productive capacity is much in excess of requirements. The trouble is that consumption in the current season appears to be falling behind that of last season by at least I million tons and probably more. It is the addition of this amount to the already enormous surplus stocks which has brought about the present crisis. Unless producers can hold out firmly, there is no reason why the price should not decline a great deal further—there is really no minimum limit when everything depends upon stock-holding. But at the same time it must be observed that invisible supplies are everywhere very small, and if the market received some assurance against a further price fall, or if prices once started rising, however slightly, buying might recommence on a substantial scale in order to take advantage of the present previously unheard-of prices. It seems likely that there will either be a further collapse caused by producers forced to sell, or a fairly rapid recovery of prices, and it is to be sincerely hoped for the sake of Cuba and other unprotected producers that the latter will occur first. Even so it will be some time before conditions become normal, unless the present world depression passes away with unexpected speed.

VIII.—TEA.

STOCKS OF TEA IN THE UNITED KINGDOM.*
(1,000 lbs.)

End of Month.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.	1929.	1930.
Jan Feb March April May June July Aug Oct Nov Dec	219,377 223,179 229,568 233,018 228,73 218,290 207,448 197,433 190,799 190,129 196,534 205,420	208,115 221,362 219,645 219,645 214,484 192,396 170,478 153,198 142,137 151,510 152,095 158,357 169,776	186,035 176,681 183,413 167,763 † 141,659 126,792 112,890 121,935 134,170 146,990 152,288 165,666	182,865 188,559 193,362 192,219 152,317 138,691 121,097 128,266 136,694 150,721 174,414 205,859	225,067 234,557 231,516 217,091 190,730 180,859 163,255 165,085 180,621 181,683 189,080 203,654	209,655 202,300 195,388 179,891 163,408 155,595 148,207 156,850 175,012 186,861 196,626 207,003	222,636 217,413 194,362 179,315 158,012 145,417 136,531 146,631 163,838 185,155 213,808 239,085	254,957 252,704 242,771 223,464 195,988 179,214 170,519 179,106 194,681 209,701 224,717 240,738	251,387 253,716 259,651 221,258 184,578 182,862 191,558 201,892 221,439 235,679 260,427	266,633 267,028 248,948 234,753 209,066 201,167 214,908

^{*} Previous to April 1929, Tea in Bond in the U.K. † Excluding Irish Free State from this month onwards.

The only figures available for stocks of tea are those compiled by the Tea Brokers Association of London from returns supplied by the London Tea Warehouses. Previous to April 1929, official Customs statistics were available for tea in bond in the United Kingdom, and

these furnished a complete record of stocks in this country. The current figures represent about 90 per cent. of the trade, and for comparison with earlier years should be raised by about 10 per cent.

Even without this adjustment the stocks

^{*} By Sept. 25th the price was 1.13 cents c. and f. New York.

figures have run high since the middle of 1929, and the reduction this year is not more than the usual seasonal movement.

The general tendency of prices during 1929 was downward, and a recovery in the first quarter of this year has been followed by a renewed fall.

Consumption in Great Britain and Northern Ireland has been as follows in recent years.

	M	fillion lbs
1923		387-5
1924	• • • • • • • • • • • • • • • • • • • •	396-5
1925		
		408-8
1929		465-6

But the last is not comparable with previous years owing to the removal of the duty and the consequential lack of statistics of actual releases from bond for consumption. In view of the previous trend it is extremely improbable that such a spurt in consumption occurred.

Some idea of the comparative changes in world consumption may be obtained from the following figures of total imports for home consumption into the principal consuming countries. (The figures are partly estimated.)

	Million lbs.
1923	. 723.3
1924	. 738-1
1925	. 754-6
1926	778-5
1927	. 792.3
1928	. 817.9
1929	

The large increase in 1929 is attributable to the United Kingdom (for which case, as mentioned above, the estimate is dubious) and to Russia (European). There was a large proportionate increase for Holland and a normal increase for many other countries. But the majority of the North and South American countries showed a decrease.

IX.—COFFEE.

(G. Duuring & Zoon.)

(1,000 bags.)

Beginning of Month.	Visible Supply of Europe.	Visible Supply of U.S.A.	Stocks in Brazil.	Total.	Stocks in Interior of Sao Paulo.	Grand Total.
1913 July Sept Oct	6,480 6,005 6,019	1,848 1,477 1,393	1,947 4,002 4,769	10,275 11,484 12,181		
1914 Jan April June	7,275 8,702 8,353	1,709 2,172 2,056	4,681 1,743 1,207	13,665 12,617 11,616		
1919 Jan April July	758 2,755 3,124	1,010 1,964 1,508	9,296 7,060 5,704	11,364 11,799 10,336		
Oct 1920 Jan April July	2,821 2,843 2,573 2,509	2,057 2,007 2,209 2,293	5,540 5,020 3,392 1,948	10,418 9,870 8,174 6,750		
Oct 1921 Jan April July	2,955 2,588 2,533 2,562	2,640 2,442 2,765 2,100	2,387 3,735 3,389 4,038	7,982 8,765 8,687 8,700		
Oct 1922 Jan April	2,564 2,399 2,977	1,838 2,056 1,583	4,589 4,948 4,580	8,991 9,403 9,140		
July Oct 1923 Jan April July	3,068 3,007 2,839 2,463 2,296	1,456 1,182 1,385 1,618 1,075	4,115 4,292 3,756 2,903 1,969	8,639 8,481 7,980 6,974 5,340	- 33	
Oct 1924 Jan April July	2,449 2,228 1,935 2,152	1,387 1,349 1,075 1,387	2,016 890 954 1,532	5,852 4,467 3,964 5,071		9,663
Oct 1925	2,255	1,337	2,135	5,727		
Jan April July Oct	2,098 2,028 2,193 2,367	1,116 1,154	2,245 1,738	5,384 5,389 5,085 5,230	1,786	6,871

Beginning of Month.	Visible Supply of Europe.	Visible Supply of U.S.A.	Stocks in Brazil.	Total.	Stocks in Interior of Sao Paulo.	Stocks in In- terior of Rio de Janeiro.	Grand Total.
1926 Jan. April July Oct. 1927	2,163 2,041 2,028 2,190	1,484 1,258 1,065 1,448	1,517 1,487 1,478 1,217	5,164 4,786 4,571 4,856	4,383 3,902 2,833 5,255		9,547 8,688 7,404 10,111
Jan. April July Oct. 1928	2,024 2,142 2,308 2,470	1,617 1,338 1,298 1,182	1,270 1,078 1,116 1,333	4,911 4,558 4,720 4,985	5,990 3,888 3,312 9,570		10,901 8,446 8,032 14,555
Jan. April July Oct. 1929	2,277 2,442 2,841 2,608	1,479 1,409 1,381 1,193	1,512 1,404 1,507 1,564	5,268 5,255 5,729 5,365	13,120 12,653 11,672 13,469	1,180	18,388 17,908 18,581 —
Jan. April May June July Aug. Sept. Oct. Nov. Dec. 1930	2,358 2,373 2,656 2,718 2,727 2,888 2,858 2,756 2,619 2,383	1,333 1,178 1,131 1,130 1,109 1,205 1,197 1,246 1,211 1,113	1,481 1,429 1,431 1,498 1,502 1,354 1,261 1,220 1,239 1,473	5,172 4,980 5,217 5,346 5,338 5,447 5,316 5,222 5,069 4,969	12,966 10,403 9,772 9,084 8,785 10,448 12,531 14,892 — 17,251	585 320 186 116 136 317 654 1,023 1,407 1,542	18,723 15,703 15,175 14,546 14,259 16,212 18,801 21,137 23,762
Jan. Feb. March April May June July	2,285 2,137 2,239 2,310 2,528 2,589 2,622	1,107 1,340 1,444 1,352 1,248 1,180 1,192	1,702 1,663 1,643 1,605 1,534 1,714 1,779	5,094 5,110 5,326 5,267 5,300 5,483 5,593	18,357 19,377 19,686 20,503 22,367 21,833 21,210	1,612 1,735 1,756 1,700 1,643 2,498 1,621	25,063 26,222 26,768 27,470 29,310 29,814 28,424

The preceding table is based on the figures supplied by Messrs. Duuring & Zoon, the most important omissions therefrom are the stocks in the East and Eastern ports, and until recently coffee afloat from the East to U.S.A. About two-thirds of the supply of coffee for Europe and U.S.A. comes from Brazil. Until 1924, stocks in the interior of Brazil were omitted also, but since that year information as to stocks in the interior of Sao Paulo is available, and quite recently figures have been published of stocks held in the interior of Rio de Janeiro. The statistics have therefore recently become reasonably comprehensive. The visible supply has lately been only a fraction of the total supplies available, but this is, of course, due to the present valorisation scheme, whereby stocks are held in Government warehouses in the interior, and not, as in previous schemes, at Brazilian or foreign ports. The visible supply figures were not, therefore, so untrustworthy before 1924 as they have been recently.

Deliveries during recent years have been

as follows:

DELIVERIES OF COFFEE. (1,000 bags.)

Year.	To Europe.	To U.S.A.	Total.	From Brazil.	Other Kinds.
1920	5,213	9,167	14,380	8,638	5,742
1921	8,094	9,958	18,052	11,356	6,696
1922	8,238	9,654	17,892	11,100	6,792
1923	9,240	10,585	19,825	13,516	6,309
1924	9,981	10,709	20,690	13,473	7,217
1925	9,481	9,488	18,969	11,868	7,101
1926	9,984	10,665	20,649	13,164	7,485
1927	10,656	0,933	21,589	13,834	7,755
1928	10,930	10,849	21,779	13,198	8,581
1929	10,800	10,881	21,681	12,814	8,867

In July 1929 the situation in Brazil showed such a marked improvement that it seemed as if the Coffee Defence Institute was more firmly in the saddle than it had ever been. Values had certainly been slowly declining for some months, and this continued throughout August and September, but there were no special developments affecting the current crop, though the frost so much desired by the planters did not occur, and hence the heavy flowering of the 1930–31 crop gave promise of a further large crop to come. Then at the end of the first week in October the Santos and the New York terminal markets collapsed with a sudden unexpectedness such as is almost unparalleled in the history of even speculative markets. The whole trade was taken completely unawares. Business came practically to a standstill, for no reliable news emanated from Brazil, and no one could be at all certain what was happening.

Gradually it became apparent that, owing to the refusal by a firm of European bankers of a renewal of customary advances, due to the Hatry affair, the Institute was in financial difficulties, and could neither support the market as has been its practice, nor provide advances on the newly-harvested coffee then being delivered in large quantities to the official interior warehouses. After innumerable rumours of all kinds, it was officially announced that the Bank of Brazil had undertaken to supply £2,500,000 to the Institute, but further rumours that the Institute had been refused a loan of £9,000,000 by European bankers sent the position from very bad to even worse. At the end of October the Santos No. 4 contract on the New York terminal market showed a decline from 20.5 cents a month previously to 13.4 cents, and the quotation for Santos Superior c. and f. Europe from 97s. per cwt. to 80s. During November the terminal market was steady, but the Santos Superior quotation declined to 65s., and during December to 57s.; at the beginning of 1929 it had stood at 104s. In November an advance of £2,000,000 was made by the Federal Government to the Government of the State of Sao Paulo. and by the end of the year the Institute was clearly re-establishing its control over supplies. but its apparent inability to obtain loans from abroad still seemed to make its future very uncertain. Some small recovery in prices took place during January, and was more or less maintained during February and March, though it became evident that the Institute had resumed its supporting operations whenever prices sagged. At last, in April, the 1930 7 per cent. Coffee Realisation Loan was announced and successfully floated. This loan is for no less a sum than f_{20} million, and can hardly fail to satisfy the needs of the present and the immediate future. The loan is accompanied by conditions providing for a slightly more rapid release of the stocks of coffee, but the principle and general methods of valorisation are to be maintained.

With the flotation of the new loan the Institute is clearly subject to some measure of restrictive control. It seems to be assumed that the policy will now be to put on the market all the coffee it will take at a price equivalent of, say, 12–14 cents for Santos No. 4. The general opinion of the trade has always been that the demand for coffee is extremely inelastic, but it seems hardly conceivable that a halving of prices will not stimulate consumption appreciably, even taking account of the fact that the price of green coffee is but a small part of the price paid by the consumer for the processed article. Some increase in consumption

may therefore be anticipated. But production in the mild countries may continue to expand for a time, though it is doubtful whether, even at the normal premium for milds, all the existing sources of supply can continue at the price level indicated above; and the prospects are for a very large Brazilian crop this summer. At a price level of 12–14 cents probably most of the Brazilian production could pay its way, apart from the financial burdens involved by valorisation, and the consequent delay in sales. But the need for financing stocks will remain for some time, and this is bound to continue to

make a substantial addition to the expenses of production. The excess capacity in Brazil is, however, very large, and it seems likely that prices will have to go still lower before this excess is forced out of existence. As prices decline, a double process of relief ensues, for cultivation expenses will be restricted even on the better plantations in order to maintain profits, and this will bring about a decline in yields on these better plantations, while the high-cost old plantations will at the same time be abandoned. It will almost certainly take years to restore conditions of real equilibrium.

X.—PETROLEUM.

The only figures of stocks regularly available are those for the United States, compiled by the U.S. Dept. of Commerce. Since, however, nearly 80 per cent. of the world's oil stocks are held in the United States, these figures can be regarded as reasonably representative. Unfortunately, a change in the method of compilation has very greatly impaired the value of these American statistics. Since January 1925, stocks of fuel oil in California have been included in the figures of Californian stocks of crude petroleum. This change makes it impossible to ascertain the total American stocks of crude petroleum: only the total east of California is now avail-

able, and as this was not published separately before January 1925, no comparative series of any sort can be constructed. Similarly this change makes it impossible to ascertain the total American stocks of refined oils, because the stocks of fuel oil are exclusive of California. It is possible to give statistics of the total supply of crude and refined together, and to carry this series back beyond January 1925, but this is all that can be done. This series is as follows: in order to give some idea of the general growth of the industry, and therefore the relation of stocks to consumption, the monthly average for each year of crude petroleum run to stills is shown in the last line of the table:

TOTAL U.S.A. STOCKS OF CRUDE AND REFINED OILS.* (1,000 barrels.)

End of Month.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.	1929.	1930.
March June Sept. Dec.	171,109 182,021	221,383 234,892	302,345 318,960	395,608 	463,072 480,685 487,509 477,958	490,953 504,941 473,108 469,577	502,777 482,763 467,584 476,479	499,323 520,669 531,658 543,335	568,498 570,792 562,914 570,734	599,338 610,956 627,426 623,798	638,384 630,766
Monthly average run to stills	36,160	36,947	41,725	48,436	53,842	61,667	64,977	69,070	76,108	82,309	

^{*} The figures of refined oils are confined to liquid products, i.e. greases, etc., are not included.

The following table shows the stocks of second column the stocks of crude and fuel crude petroleum east of California, and in the oil in California, since March 1925:

	Crude Petroleum Stocks East of California.	Crude Petroleum and Fuel Oil Stocks in California.
1925 March	308,548 310,732 300,981 292,288	103,721 110,203 121,664 126,129
1926 March	287,710 281,432 277,771 278,077	131,678 122,794 117,964 118,330
1927 March June Sept Dec	290,110 315,702 339,741 351,646	119,364 117,414 114,981 111,855
1928 March	368,744 370,751 366,652 368,431	114,117 113,431 113,433 115,914
Dec. 1929 March June Sept. Dec. 1930 March June	379,659 379,089 386,662 382,391 380,007 377,822	113,914 124,571 136,327 150,443 152,089 152,124 146,321

Of refined products, kerosene and lubricating oils are now quantitatively unimportant. Since the statistics of stocks of Fuel and Gas Oils are now exclusive of California, they are of very little significance, but the following brief summary may be given: no estimate of consumption is possible in the absence of adequate statistics of stocks.

STOCKS OF FUEL AND GAS OILS EAST OF CALIFORNIA.

(Million gallons.)

End of Month.	1925.	1926.	1927.	1928.	1929.	1930.
March June Sept Dec	802 1,082 1,256 1,037	851 947 1,142 1,046	948 1,117 1,328 1,343	1,225 1,513 1,683 1,467	1,268 1,568 1,707 1,436	1,385

Fortunately the gasolene statistics are not affected by the change in statistical compilation. The following table shows the total stocks in the U.S.A., and the estimated domestic consumption.

	End of Month.	Stocks of Gasolene.	Domestic Consumption.
1920 r 1921 1922 1923 1924 1925 1926	nonthly average " " " " " " " " " "	464 631 791 1,186 1,483 1,614	354 376 448 549 647 782
1925 1926	March June Sept. Dec. March June	1,747 1,695 1,514 1,648 1,936 1,713	625 868 849 760 780 969
1927	Sept. Dec. March June Sept. Dec.	1,400 1,639 2,201 1,838 1,249 1,357	943 900 943 1,167 1,193 996
1928	March June Sept. Dec. March June	1,690 1,444 1,109 1,389 1,924 1,763	1,010 1,219 1,247 1,119 1,155 1,391
1930	Sept. Dec. March June	1,395 1,811 2,319 2,109	1,436 1,105 1,303 1,508

Despite efforts at restriction of output, stocks continued to increase throughout 1929 and during the first quarter of this year, though the rate of increase in itself was so small as to be of little account if it were not for the already high level of stocks, and the fact that the rise indicated that production was still in excess of consumption. In November, however, production suddenly dropped to a lower level, and if consumption had continued at the normal rate, a rapid improvement would have developed. But the normal increase in consumption appears to have been checked, though not much actually diminished, and hence there was little improvement in the stock position up till June. Recently, however, steps have been taken to enforce restriction more strictly and more widely, and if the forecasts prove true, production will be reduced still further. Consumption has so far been relatively little affected by the trade depression—that of gasolene shows even more than the normal increase—but prices have dropped considerably, and hence the desperation of producers which has led to more determined efforts at restriction. As compared with most other raw materials, however, petroleum is in a thoroughly happy condition, for even though it may take a long time to reduce the present accumulation of stocks, there has been no real break-down of prices or diminished consumption.

XI.—NITRATE.

Very reliable figures for Chile nitrates are regularly published by Messrs. Aikman, and are quoted below.* As in the case of so many other commodities, these also show a deterioration in the position from the middle of 1929 onwards, and we have to go back to 1921 for similarly high totals. By the end of 1929 it was obvious that estimated consumption would not be achieved, and successive measures were taken to meet the situation. These involved the internal control of the Chilean industry, and subsequently arrangements with the synthetic producers.

On the internal side a restriction scheme was inaugurated to work from February 1st, 1930, with the object of reducing output by about 20 per cent. through the closing down of the high-cost oficinas. Judging by the production figures for the first half-year, this proposed restriction was effective. A further step in control was taken when the Producers Association decided that from July 1st, 1930, the conveyance and sale of nitrate in Europe and the Mediterranean should be effected by the Association itself.

But the most drastic internal development was the consolidation of the whole industry into a single company, the Compania Salitera Nacional ("Cosana"). This merger is to absorb the present capital invested in the industry and, superseding the Nitrate Producers Association, to control production, distribution and propaganda. Details of the capitalisation and of the arrangements with the Chilean Government can be found in the reports of Messrs. Aikman and in the financial Press.

This rationalisation of the Chilean industry has facilitated negotiations with the synthetic producers. The understanding arrived at last year between the natural producers and the two largest synthetic producers, the I. G. Farbenindustrie and Imperial Chemicals Industries, was to some extent nullified by

the unrestricted competition of other synthetic and by-product nitrogen producers, especially in Belgium, Holland, Czecho-Slovakia and Poland. This year an International Nitrate Conference was held at Ostend in June and continued in Paris, and in early August it was announced that a world-wide agreement had been concluded. Under this a "European Convention of the Nitrate Industry" is to be established, and this Cartel is to unite with the Chilean producers in regulating output and prices (see Financial Press, August 11th, 1930).

Some rather optimistic estimates were made for the natural industry at the time of the "Cosana" merger, and the latest agreement should apparently fortify these claims. But this is not the first time that the end of the nitrate war has been proclaimed.

According to Messrs. Aikman the production of nitrate of soda in recent years has been as follows:

PRODUCTION OF NITRATE OF SODA IN CHILE TWELVE MONTHS ENDING JUNE 30.

(000 tons.)	
1927	. 1,297
1928	. 2,507
1929	
1930	

From the same source are quoted the consumption figures in terms of pure nitrogen over the past six years.

(000 tons.)

	1924-5.	1925–6.	1926-7.	1927-8.	1928-29.	1929-30.
Synthetic nitro- gen products By-product sul- phate of am-	450	585	735	825	1,075	1,175
monia Chilean nitrate	275 363	300 323	310 271	390 390	405 415	425 363
Total	1,088	1,208	1,316	1,605	1,895	1,963

st The issue of monthly statistical circulars by Messrs. Aikman has now ceased.

(1,000 tons.)

Sandard Contractor	End of Month.	Visible (including		Stocks in	Total.
		Europe and Egypt.	U.S.A.	Chile.	
Section of the Control of the Contro	1913 Jan March June Sept Dec	1,128 686 416 571 1,093	89 97 84 79 71	490 527 754 752 498	1,727 1,326 1,652 1,414 1,685
Sensons entitlemental sensons sensons provincial sensons senso	1919 July	140 152 430 368 317 495 782 868 836 828 903-5 520 228-5 296 463-5 379-5 173 365 573 371 115 429 684 379-5 227 408	28 49 95 225 216 194 132 218 249 41 260 115 38 133 195 238 47 193 47 124 111 233 122 105	1,594 1,705 1,576 1,218 1,248 1,303 1,304 1,283 1,317 1,453 1,441 1,504 1,495 1,225 889 997 927 852 782 1,075 900 882 756 869 869 896	1,780 1,925 2,134 1,914 1,800 2,008 2,235 2,384 2,405 2,370 2,622-5 2,149 1,873-5 1,945 1,912-5 1,310 1,250 1,415 1,638-5 1,368-5 1,218 1,409
Santabath	Dec	682.5	115	878	1,675.5

		The state of the s				englishingen adaption province
ORGENICATION PARTY NAMED IN COLUMN PARTY NAM	End	of Month.	Visible Supply (including alloat).		Stocks in	Total.
			Europe and Egypt.	U.S.A.	Chile.	rotar.
SCHOOL STREET,	1926	March June Sept	447 314 324	196 117 152	906 1,228 1,303	1,549 1,659 1,779
Compensations	1927	Dec March June	328 229·5 139·5	192 106 52	1,274 991 989	1,794 1,326·5 1,180·5
	1928	Sept Dec March June	395 803 526·5 349·5	86 130·5 170·5 114	724 519 394 670	1,205 1,452·5 1,091 1,133·5
	1929	Sept Dec Jan	549·5 956·5 1,103·5	112 206 287	922 874 714	1,583·5 2,036·5 2,104·5
		Feb March April May	1,047 879-5 660 556-5	276 220 183 132	701 695 747 871	2,024 1,794·5 1,590 1,559·5
		June July Aug	548 627 699	121 129 155	938 1,046 1,124	1,607 1,802 1,978
		Sept Oct Nov	818 933 1,018	166 205 241	1,085 1,093 1,106	2,069 2,231 2,365
	1930	Dec Jan Feb March	1,090·5 1,086 957 786·5	275 358 378 307	1,150 1,209 1,268 1,294	2,515·5 2,653 2,603 2,387·5
		April May June	626 546 466*	174 121 81*	1,447 1,568 1,702*	2,247 2,235 2,249*

^{*} Provisional.

XII.—WHEAT.

The current available statistics relating to supplies and stocks of wheat are well summarised in the *Wheat Studies* of the Food Research Institute of Stanford University, California, to which reference is recommended. The following tables relating to wheat supplies in the leading countries of export 1924–30 have been taken from this source. The following summary of the situation was published in the Food Research Institute's bulletin for August 1030.

1930.

"At the close of the crop year 1929-30 international wheat prices reached their lowest post-war level, after a decline in two weeks of June induced by the pressure of large stocks of old-crop wheat in North America and an atmosphere of pessimism in the business world. . . .

"Net exports in the crop year 1929-30 approximated only 625 million bushels. The decline in the volume of trade between 1928-29 and 1929-30, over 300 million bushels, was the largest change recorded in the twentieth century.

"The world outward carry-over was large, but not as large as that of 1929; it was heavily concentrated in North America. At the moment the wheat crop of 1930 appears to be about a normal one in size and distribution, if the Southern Hemisphere harvests good crops. Under the apparent distribution of world wheat supplies, international trade ought to prove much larger in 1930-31 than in 1929-30. Perhaps import requirements approximate 775-875 million bushels. Requirements of this size can probably be met only with some reduction in the carry-overs of exporting countries, but the statistical position can hardly be tight. Under the assumption that Argentina and Australia will harvest about 390 million bushels of wheat, that economic conditions throughout the world will improve, and that the feed grains and rye will prove to be less abundant in 1930-31 than in 1929-30, it seems reasonable to suppose that international wheat prices may rise from the low level of July-August 1930. But at the moment it is difficult to perceive elements of strength in the situation that would cause the level of prices in 1930-

31 to be even a moderately high one."

According to the estimates below the total end of season stocks in the four major exporting countries declined, compared with the level at the end of the previous season. North Ameri-

can stocks showed a slight increase and the Australian figure was abnormally high, but the reduction in the Argentine carry-over more than offset these increases. Other reports indicate an appreciable reduction in aggregate European stocks, although the French total on

WHEAT SUPPLIES AND THEIR DISPOSITION IN FOUR LEADING EXPORT COUNTRIES, 1924-30.*

(Million bushels.)

(A) UNITED STATES:

Years ending June 30th.

A STATE OF THE PARTY OF THE PAR		1924-5.	1925-6.	1926-7.	1927-8.	1928-9.	1929-30.
National Control	Initial stocks New crop	165 864	135 677	112 831	137 878	143 915	264 806
	Total supplies	1,029	812	943	1,015	1,058	1,070
THE PERSON	Net Exports	258	95	209	194	147	143
AND DESCRIPTION OF THE PROPERTY OF THE PROPERT	Seed require- ments Consumption Feed and waste Apparent error in crop es- timate	84 479 73	79 493 33	84 494 17	90 505 83	82 506 59	83 514 40
	Stocks at end	138	112	137	143	264	290

(C) ARGENTINA:

Years ending July 31st.

	1924-5.	1925-6.	1926-7.	1927-8.	1928-9.	1929-30.
Initial stocks New crop	66 191	56 191	61 230	65 239	90 307	130 175
Total supplies	257	247	291	304	397	305
Net Exports	123	94	143	178	224	151
Seed require- ments Consumption,	23	25	24	25	23	24
feed and waste Apparent error	55	64	60	62	65	66
in crop es- timate	_	+3	-1	-51	 4 5	_
Stocks at end	56	61	65	90	130	64

(B) CANADA:

Years ending July 31st.

	1924-5.	1925-6.	1926-7.	1927-8.	1928-9.	1929-30.
Initial stocks New crop	41 262	26 395	36 407	51 480	78 567	104 305
Total supplies	303	421	443	531	645	409
Net Exports	192	324	292	332	406	185
Seed require- ments Consumption Feed and waste Apparent error in crop es-	38 42 22	40 42 18	39 43 31	42 42 34	44 44 44	45 44 16
timate	-17	-39	-13	+3	+3	+7
Stocks at end	26	35	51	78	104	112

(D) AUSTRALIA:

Years ending July 31st.

	1924-5.	1925–6.	1926-7.	1927-8.	1928-9.	1929-30.
Initial stocks New crop	38 165	36 115	30 161	34 118	43 160	38 126
Total supplies	203	151	191	152	203	164
Net Exports	124	77	103	71	109	62
Seed require- ments Consumption Feed and waste Apparent error in crop es-	11 29 3	11 29 4	12 30 5	14 30 4	14 31 4	16 31 4
timate			+7	-10	+7	
Stocks, July 31	36	30	34	43	38	51

^{*} Estimates for 1929-30 preliminary.

Aug. 1, 1930, was extraordinarily large. [These estimates for Europe do not cover Russia.]

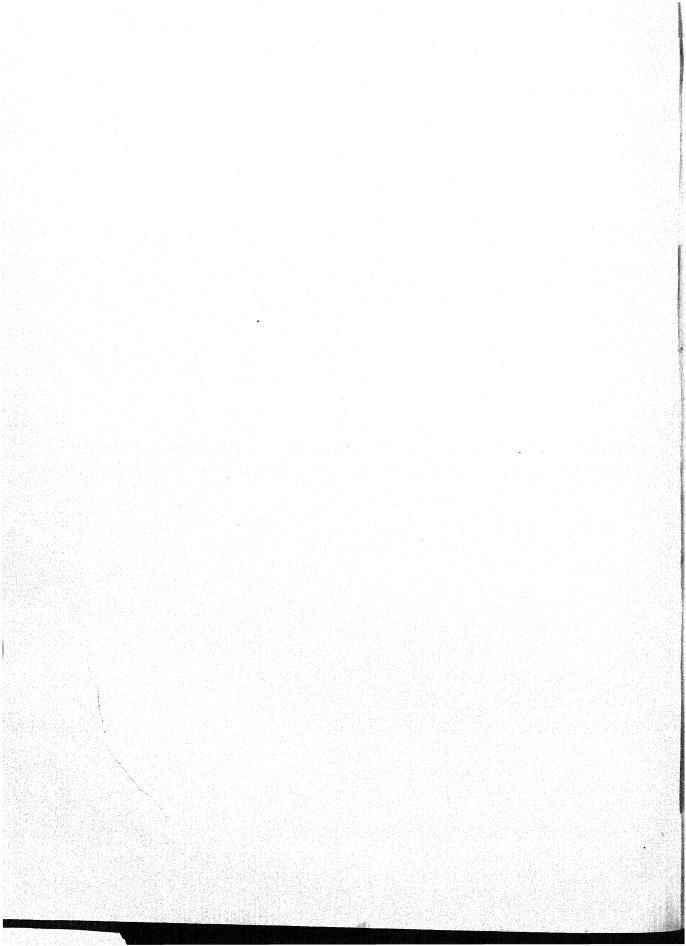
As far as the new harvest is concerned the Northern Hemisphere wheat crop of 1930 is expected to prove an average one, in line with the post-war trend. The estimates are for a slightly larger crop in the U.S.A. than in 1929, a definitely larger crop in Canada, some increase for the Danubian exporting countries and a considerable reduction in the other (importing) European areas. For the last region the decline in 1929 has been estimated at 150 million bushels, France and Italy being the worst hit.

With regard to the Southern Hemisphere,

calculations at the moment can only be based on acreage and sowing conditions, and these indicate a fairly large crop in 1930 if weather conditions during the remainder of the season are reasonably favourable.

Thus the harvest results and estimates suggest a larger volume of international trade in the current season than in the last, and this should reduce the existing high total of the carry-over in the exporting countries. But import requirements would have to be very large to bring these stocks down to a normal level, and there is nothing in the immediate outlook to lift prices to even a moderately high post-war level.

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ISSUED BY ARRANGEMENT WITH THE LONDON AND CAMBRIDGE ECONOMIC SERVICE

MEMORANDUM No. 25

REPORT ON CURRENT ECONOMIC CONDITIONS

October, 1930

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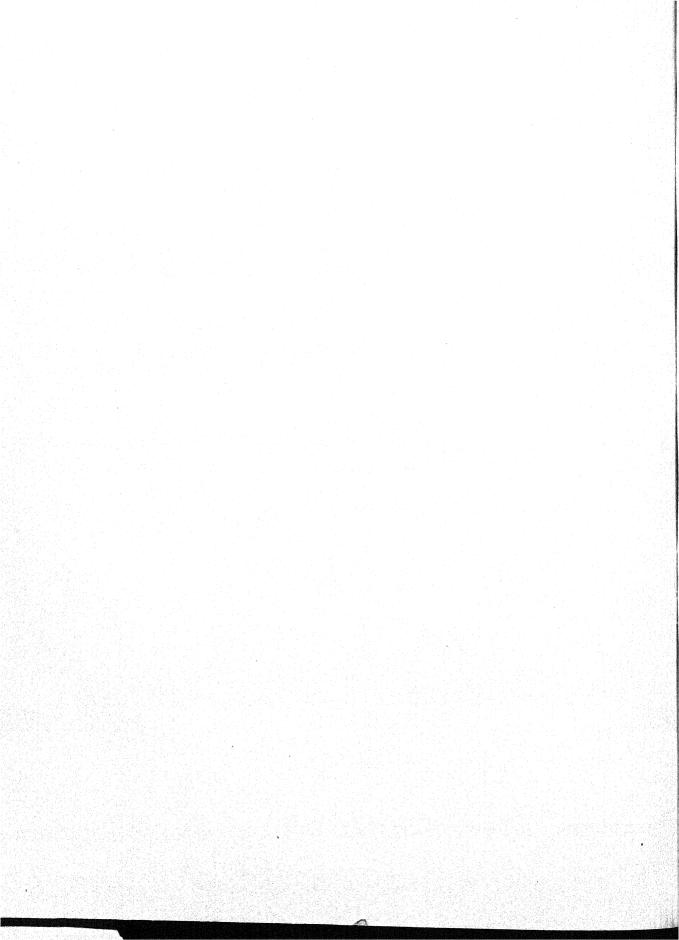
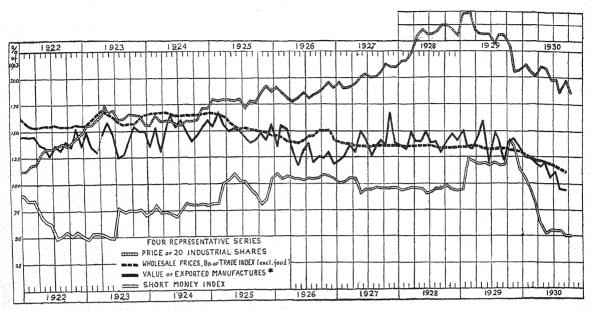


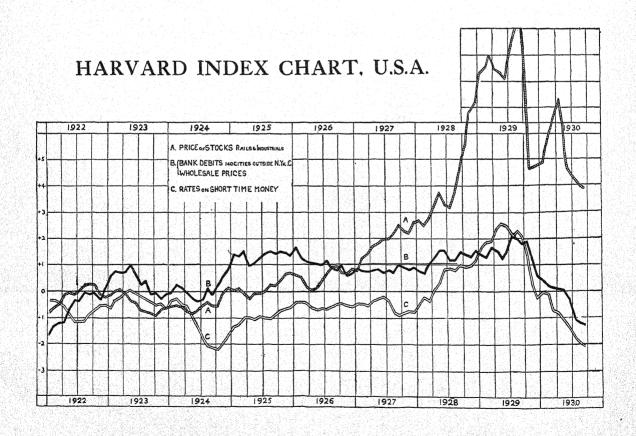
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* Normal seasonal change removed.



THE GENERAL BUSINESS POSITION.

UNITED KINGDOM.

October 20th, 1930.

dominated by the depression. Share and commodity prices, production and exports fell to new low levels, and at the end of the quarter the number of insured workers employed was less than in 1924. Apart from a slight seasonal revival in a few lines, the most recent movements show no check to the downward trend.

The world depression began exactly a year ago, and it is convenient to review the position both generally and in respect

of the situation in this country. The most striking feature of the slump is the fall in wholesale prices, which has brought the index down nearly to the pre-war level. It need not be discussed whether this represents the end of a long chapter on prices which started in 1914; but, successively, assumptions that the general level of prices would settle at 80, 60 and 40% above the pre-war level have proved erroneous. With the present trend of gold prices it would require a considerable boom to lift the index from the current level up to the 30% mark. In the case of this country, where an inflated price level had first of all to be adjusted to a gold basis, the situation has demanded the utmost flexibility and adaptability in the factors determining costs and prices; in practice rigidity has prevailed. Compared with 1924, when, it may be remarked. equilibrium had by no means been achieved, wholesale prices of food and raw materials have now fallen by more than 30%, the prices of our manufactured exports by 20%, the cost of living by 11% and the money wage index by less than 2%. The volume of production this year will be smaller than in 1924 and the monthly value of our total exports is already less than the average of 1913.

Thus, an ordinary trade revival would not correct the situation in this country, but there are no signs that even this measure of relief will be afforded in the near future. Normally the depression should be lifting after a duration of twelve months, but though the stage has been set for some time for a financial recovery, no improvement has been carried over to trade and industry. The great disappointment is the absence of revival in the U.S.A., and on top of this further and extreme uncertainty has been created by political developments in important countries, in several cases directly associated with adverse economic conditions. This has led to almost complete stagnation in the international loan market and this financial hold-up prolongs the crisis in raw materials. Enormous stocks of these still remain to be cleared. As far as psychological factors play a part—and at this stage of the depression they are not unimportant—the omens are bad. In the circumstances the report that responsible authorities in the U.S.A. are prepared to review the problem of international obligations is of considerable significance.

UNITED STATES. HARVARD FORECAST. (By Cable.)

IN September improvement in business volumes fell below normal seasonal expectation so that business continued in declining phase of business cycle. Early October evidence points to some gain in business volumes and commodity prices have steadied after sharp drop in second half of September, but it is unlikely that gains sufficient to outweigh early deficiencies of the autumn trade movement will appear. Recent decline in stock prices will exert adverse influence, but its importance will be lessened both by easy

October 17th, 1930. financial situation and by fact that business is at depression levels much below those of last June as well as those of a year ago. Meanwhile curative re-adjustments incident to business depression and preparing way for recovery have been in operation. Comparison of present cyclical decline with declines of past cycles indicates that current downward movement measured by both amount and duration of decline is approaching its end. This may be near at hand and at the worst will be reached in a few months.

UNITED STATES

(Harvard Economic Society).

FINANCIAL AND BUSINESS CONDITIONS. (Extracts from letter of Oct. 4th, 1930.)

FINANCIAL SITUATION.— THE Contrary to seasonal experience, the money market last month displayed no greater firmness than in Some commercial August. autumn borrowing was, to be sure, in evidence during September, while security issues increased and hand-to-hand currency in circulation was in larger volume. But neither from speculation nor from business were demands large enough to raise money rates above the extremely low levels of August. Time money, in fact, showed further easing toward the end of the month. Meanwhile the outflow of gold has not been important, and operations of the reserve banks have continued to favour the maintenance of money ease.

Stock prices, influenced by disappointing reports concerning the autumn trade and by renewed weakness in commodity prices, declined sharply after the tenth of the month. The decline in the speculation curve (A) of the index chart, which is based on monthly averages of such prices, was not great, however. Meanwhile, prices of corporation bonds continued to rise, further purchases by commercial banks contributing to this advance.

THE MONEY MARKET.—The extreme ease which characterised the money market in mid-summer persisted through September, although rates usually rise at this time of year in response to seasonal Some of the customary influences. seasonal developments are to be found in the expansion of the volume of currency in circulation after the end of July, and in the slight increase of commercial borrowing (discussed below) after the end of August. Security issues, furthermore, which had dropped to very small amounts in August, expanded as usual in September. But demand from business, as well as from speculation, remains slack.

Reserve credit to meet seasonal demands has been provided by the reserve

banks in the forms that tend to ease the money market, since sufficient additions have been made to their security and acceptance holdings to permit reduction of member bank borrowing. On September 17, such borrowing fell to the lowest point in post-war years, and has increased little since. The chief demand for reserve credit has resulted from the expansion of currency in circulation. The previous reduction of currency outstanding, which had been very rapid in the first part of the year, terminated near the end of July (the customary seasonal low point); the rise since then, which provides hand-to-hand money for crop moving and the autumn trade, has been moderately below that of recent years. Between July 30 and October 1, it amounted to 97 million dollars; and there was during this interval a loss of 3 million dollars from the stock of monetary gold, which likewise tends to increase the demand for reserve credit. From the sum of these two items (100 millions) must be subtracted the decline in member bank reserve balances (21 millions), since such a decline means lessened demand for reserve credit. On balance, therefore, the demand factors showed an increase of 79 million dollars; the corresponding increase in the principal forms of reserve credit was 76 million dollars. But during this interval the reserve banks added 87 million dollars to their acceptances and securities, so that rediscounts, the other important source of reserve credit, declined II millions. It is to be noted that almost all of the increase in securities and acceptances has been in the latter, which are being purchased by the reserve banks at rates below the current rediscount rates.

The commercial ("all other") loans of the reporting banks of the reserve system, which declined in August contrary to the usual seasonal experience, rose in the first two weeks of September and lost part of the increase in the next two. An advance is, however, suggested for October I, since loans in both New York City and Chicago have risen sharply.

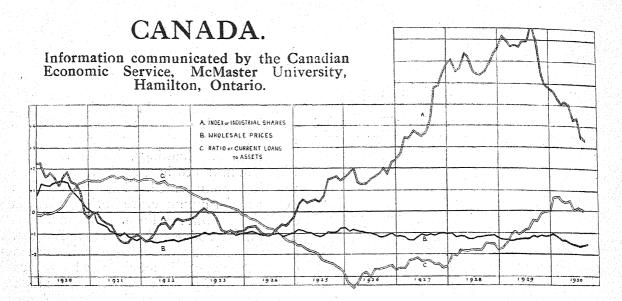
THE PRESENT SITUATION.—Considerable declines in the stock market and renewed weakness in commodity prices marked the closing weeks of September. Though conditions making for business recovery (especially the persistent ease in the money market) are present, the movement of autumn trade in its early stages has been disappointing. Seasonal improvement, as is the rule even in years of poor business, has indeed appeared in many directions; but the statistical evidence, in so far as now available, indicates that the gains have exceeded the normal movement in only a few lines, and in more have barely equalled or fallen short of the usual advance. Indeed, the most general indicator of the dollar volume of business -bank debits, for which figures are available for September 24 - points, for the month as a whole, to little if any gain over August, the seasonal low point, though there is usually a moderate advance. Commercial loans have shown very little increase, while the volume of currency in circulation, as measured from the seasonal low point at the end of July, has risen less than in other recent years.

The statistics relating to some special branches of activity make a more favourable showing, though the record is mixed and evidence of vigorous gains is lacking. Thus, total construction contracts for September 19 showed almost none of the

sharp decline usual in September, while residential contracts gained moderately. Car loadings of merchandise l.c.l. freight, which are influenced by the state of wholesale and retail trade, showed less than the usual gain in August, but for the week ending September 20 increased by about the usual amount. For miscellaneous loadings, however, which reflect manufacturing activity, the increase was less than usual. Direct statistical evidence for manufacture in September is available for but few lines. Steel activity, which increased less than usual in August, rose again in September—whether more or less than usual, is not clear; wheat-flour production by September 20 made less than the customary increase. decline for automobile production in September is indicated, though data on this point are not conclusive; while for other lines, as textiles and leather, September figures are not available. Nor are data at hand for such important activities as department store trade and merchandise exports, both of which showed greater than seasonal gains in August.

That the statistical evidence now at hand is unfavourable does not necessarily mean that the autumn movement as a whole is not to be up to seasonal expectation. The seasonal movement has somewhat longer to go, and September data, where available, seldom extend to the end of the month. But considerable further gains are necessary to bring about a movement fully seasonal in amount, and the record to date, coupled with recent declines in commodity prices, is not

reassuring.



October 10th, 1930.

THE weekly index of stocks showed a heavy decline during September. The index of 92 stocks advanced between September 5th and 12th, after which it began a rapid and severe downward course, falling 10% by October 3rd. The most serious declines were in mining shares and industrials. The analysis of the sub-groups forming the industrials reveals the fact that with the exception of textiles, in which the decline was moderate, all industrial shares declined heavily, the most drastic fall being in iron and steel. The effect of this latest reaction in the stock markets has been to bring the general average back to the level of the beginning of 1927. At the moment there appears nothing to warrant any hopes that a substantial recovery of stock exchange values may be looked for in the near future. Stocks will rise when they have gone so low that distress sales have all been liquidated.

The index number of wholesale prices used in the Service declined by 1% from the end of August to the end of September. The level then recorded was the lowest since 1915. The sub-index of 20 foodstuffs declined 2% from the end of August to the end of September, when the figure was the lowest recorded for any month during the last 15 years. Beef, mutton, pork, cheese, flour, oatmeal and

currants declined. Bacon, lard, tapioca and eggs rose. The sub-index of 20 manufacturers' commodities was fractionally higher at the end of September as compared with the end of August. Cotton, upland middlings, spot, fell from 11 to 1025 cents per lb., the lowest price recorded in New York since March, 1909. Raw rubber fell from 975 to 750 cents per lb., the lowest price ever recorded. Hides, iron bars, and silver rose; all other prices were unchanged.

There seem to be some indications that prices are at their lowest, or at least not far off. Looking over the list, it is hard to believe that such great staple commodities as wool, cotton, wheat and all the grains, rubber and the nonferrous metals can go very much lower. The price of raw rubber is now at what can only be termed a ridiculous price, and the same can be said for raw cotton and the grains. It is perfectly sure that no commodities can indefinitely continue to be sold at below cost of production. Wool is now steady in price, and has been for the last seven months. Silver has been rising slightly for the last three months. And so the list may be continued. With all due caution, and making allowances for any unforeseen catastrophes, it may be surmised that at least the worst of the disastrous fall of prices of the last year is over, and

slightly firmer levels may be looked for. At the risk of wearisome reiteration, it must again be pointed out that the gap between wholesale and retail prices is dangerously great, and must be lessened before economic health is regained. Unpopular and ungracious as it may appear, it is also quite apparent that sooner or later there must be a revision of wage scale downwards. As in so many other cases, we are all apt to make a fetish of high wages, and to forget that along with the prices of commodities wages may be too high. Australia is face to face with the necessity of reducing wage scales; in fact, of reducing everything from public finance to private expenditure upon luxuries, and it is entirely possible that the rest of the world, including Canada, may have to do the same.

In August 1930 total assets amounted to \$3,147 Mn. and current loans to \$1,260 Mn., while in August, 1929, they were \$3,452 Mn. and \$1,346 Mn.

During August, total assets declined by 24 Mn. and current loans by 17 Mn. As compared with August, 1929, current loans have declined 86 Mn. and total assets over 300 Mn.

It has been pointed out by competent observers that the present business depression differs radically from that of 1921, in that while money was practically unobtainable at almost any price in the former period, to-day it is positively going begging, and may be borrowed at less than two per cent. in the United States. This fact is significant, indeed it is vital to any consideration of the immediate future, for sooner or later it must bring with it its own remedy. While the socalled "psychological" explanation of the depression phase of the economic cycle does not explain everything, at least it does explain a good deal. In the last analysis, the world is suffering to-day from a surfeit of good things. It spent recklessly in the past few years, and to supply the demand a vast number of commodities were produced and manufactured and sold with greatest ease. The fault lay not so much in overproduction, but in "over-buying," and the world is suffering to-day from what we may, perhaps, be permitted to call a severe attack of indigestion. But such evils pass, and when the need to replenish comes, the depression will pass.

RECENT MOVEMENTS OF SUBSIDIARY SERIES.

UNITED KINGDOM.

FINANCE.—The recovery in industrial shares which occurred in September has not been maintained and renewed weakness has brought the index down to the lowest figure for four years. If 1924-5 is taken as a starting point the cycle in this series is nearly complete. Fixed interest securities continue to rise, and a gain of 8% has been made from the lowest level of 1929.

Gold movements in October have so far been favourable and the recorded loss in the third quarter has been recovered. GOLD MOVEMENTS TO AND FROM THE BANK OF ENGLAND. £000.

	1926	1927	1928	1929	1930
January February March May June July August Sept'mber October November December	- 251 + 1387 + 1058 - 259 + 2646 + 1151 + 1768 + 3211 + 159 - 3518 + 543 - 1624	- 16 - 1180 + 401 + 2211 - 1545 - 1140 + 699 - 586 - 770 + 671 - 1212 + 1252	+ 3945 + 21 - 149 + 2403 + 2320 + 8466 + 2106 + 1244 - 4762 - 5233 - 5088 - 6594	- 197 - 1424 + 1680 + 4660 + 5021 - 7085 - 14347 - 6617 - 5615 + 1346 + 2315 + 12035	+3953 +1071 +4794 +7126 -6628 + 73 -4438 +2458 - 548 +3227*
	+ 6271	<u> </u>	- 1321	- 8228	+11,088*

Town Clearings increased seasonally in September but the Country and Provincial figures reflect increasing depression. New Capital Issues were small, as is usual in September. Bankers' Advances again declined and are now £58 Mn. less than the maximum reached in July, 1929.

PRICES AND WAGES.—The fall in commodity prices continued in September, and there was no slackening in the rate of the movement. The Board of Trade index declined by 1.8% and the Statist index by 1.5%. The decline continued in the early part of October, and despite occasional rallies the position of many important commodities is still weak.

The downward pressure on retail prices is offsetting seasonal increases, but the advantage so far is confined to foodstuffs. The latest cost of living figure is 5½% below the corresponding figure for

IG29.

There are no wage changes to record.

TRADE AND OUTPUT.—The values of external trade in September were nearly the same as in August. In view of the low totals for these months the absence of change is no great matter for encouragement. In the same way the statistics of output of coal, iron and steel contrast very unfavourably with those of a twelvemonth before.

The slight reduction in the amount of shipping laid up in U.K. ports is less than

the normal seasonal decline, and the total reflects the great depression in trade.

SHIPPING LAID UP IN U.K. PORTS.

Net Tonnage (000's). 1927 1929 1928 1st of Month 1930 Brit. For. Brit. For. Brit. For. Brit. For. 353 228 12 12 6 359 12 312 18 January ... 349 492 233 377 April 414 267 412 260 October ... 876 9

The estimated cost of buildings for which plans were approved in the third quarter of 1930 was £16,872,000, as compared with £16,218,000 in the same quarter of 1929. A large decline in the total for factories and workshops was offset by an increase for churches, schools and public buildings, a movement probably connected with efforts of public authorities to relieve unemployment. Judging from the unemployment figure for building and construction, activity in the industry has been considerably reduced.

UNEMPLOYMENT.—Apart from very slight seasonal improvements in coal and cotton, unemployment continued to increase during September. All the nine districts showed a worsening, and subsequently the Live Register figures indicate a further increase.

LIV	E REGISTE	R 1930. 000's.	
	Males.	Females.	Total.
Sept. 22	1556	554	2110
* 29	1595	566	2162
Oct. 6	1615	561	2176
13	1631	558	2189

FINANCE, TRADE AND INDUSTRY IN THE UNITED KINGDOM IN THE THIRD QUARTER OF 1930.

THE serious nature of the depression is evident from the statistics for the third quarter, which reflect the progressive decline over the year. Falling prices affect the comparability of the figures relating to values, but the statistics of quantities, particularly those for production and exports, leave no doubt concerning the severity of the slump.

Finance.—The index number of industrial securities was fairly steady over the quarter as a whole, since the fall in August was recovered in September. But a renewed decline has set in subsequently and the figure for mid-October is the lowest for the year. The index is now back to the levels for 1926. Corresponding movements have occurred in the speculative index. The index number for fixed interest securities has risen to a level not attained since February, 1925: Town clearings reflect the comparative

stagnation in financial business. Provincial clearings, which are more representative of trade and industry, have declined by 20% compared with the third quarter of 1929. This is more than can be attributed to the fall in prices, even if a wholesale index relating mainly to food and raw materials is applicable to the internal transactions covered by the clearing figures.

New capital issues were approximately equal in total to those of the third quarter of 1929, but very much less than in the corresponding period of 1928.

The totals for the year to date compare as follows:—

	9 mos	PITAI 1927	. 18	SUES. 1928	£I	1929	•••	1930
home abroad		 125 77		154 115		142 82	···	93 77
		202		269		224		170

Bankers' Advances continued the decline which set in after the first quarter, but recently this decline has been offset by an expansion of investments and not in discounts. Net recorded gold movements at the Bank resulted in a loss of $f_{2\frac{1}{2}}$ Mn. in the quarter, but this has subsequently been recovered. The reserve, which now has to support a lower price level, is quite adequate. Money rates have remained very easy and a lower Bank rate may be justified when the autumn period has been passed.

Prices and Wages.—The index numbers of wholesale prices fell by about 4% over the quarter, the food group declining by approximately 3% and the materials group by 5%. Compared with September, 1929, the *Statist* general wholesale index shows a fall of 19:4% and the Board of Trade index a fall of 14:9%. On the pre-war basis, 1913 average = 100, the *Statist* index for September, 1930, is 106.8, and the Board of Trade index 115.5.

The following figures show the yearly averages of the general wholesale indices since the war.

GENERAL WHOLESALE PRICE INDEX, 1913=100.

		Board	I		Board
	Statist	of Trade		Statist	of Trade
1920	295	. 307	1925	160	159
1921	182	. 197	1926	148	148
1922	154	159	1927	144	141
1923	152	. 159	1928	141	140
1924	164	. 166	1929	135	136

A recovery to the level of 1929 would entail a rise of from 18 to 27% according to the choice of index. Even if the possibility of such a recovery is entertained, the process would be slow. The movements in the period covering the 1907 depression may be of interest in this connection. The price maximum in that particular cycle was reached in May, 1907, and the minimum in Feb., 1909, and the extent of the fall was 13%. The level of May, 1907, was not reached again until Feb., 1912, and it should be remembered that the general trend of prices in that period was upwards. The relevant figures are as follows:

STATIST INDEX NUMBER. Av. 1867-77=100. May, 1907 ... 82 4 Feb., 1909 ... 71 9 Feb., 1912 ... 82 9

There was no significant change in the cost of living over the third quarter but compared with a year ago there has been a fall of about 6%. No change has occurred in the wage index and the movement over the year is less than 1%.

TRADE AND OUTPUT.—The value of retained imports was 16% less than in the third quarter of 1929 and with correction for the fall in prices this indicates only a slight fall in the volume. Analysis of the volume by categories shows that imports of foodstuffs have not declined, but in the case of raw materials it was substantially less than a year ago with wool as the only important commodity showing an increase. As a purchaser this country is obtaining the full benefit of the fall in prices. The value of retained imports classified as wholly or mainly manufactured was £60 Mn. in the third quarter $compared with \c 65\,Mn. in the corresponding$ period of 1929. The comparatively small percentage decrease suggests increased quantities in this category, but, as has been pointed out before, petrol bulks largely in this group and the trend in the consumption of this commodity overrides the depression. Generally the quantities of manufactured imports show only a slight decrease, but iron and steel imports have declined considerably and there is a very large drop in the number of imported motor cars and chassis.

In exports the decline in value compared with the third quarter of 1929 was 26%, much more than can be explained by the fall in prices, particularly since it is certain that the prices of our exports have not declined to the extent shown by the wholesale index. The monthly value of exports is now less than in 1913 and the volume is probably less than two thirds. The quantity figures of leading exports for the year and the quarter reveal the extent of the decline.

CHIEF EXPORTS.

Third Onarter

19	28 1929	1930	1928	1929	1930
Coal (Mn, tons) 3	57 44	42	12.4	16.0	13.2
Iron and Steel (000 tons) 312	26 3274	2520	998	1033	723
Machinery ,, ,, 45	26 416	367	134	135	112
Cotton Yarn (Mn. lbs.) 19	26 126	102	38	41	29
Cotton Piece Goods					
(Mn. sq. yds.) 29	11 2848	1996	978	914	508
Woollen and Worsted					
Tissues (Mn. sq. yds.) 1	33 122	89		46	31
Jute Piece Goods ,, 1	39 130	86	45	47	24

Examination of the figures for exports to certain countries which are known to be affected by political or economic troubles reveals the severe repercussions on British trade. In the first 9 months of this year exports of cotton piece goods to Brazil amounted to 7 Mn. sq. yds. compared with 35 Mn. and 38 Mn. in the two previous years, for woollens and worsted the figure is about one quarter of the normal takings. Reductions of the same order have occurred in the China textile trade, although it is asserted that here the explanation is the high level of stocks which can be drawn upon rather than any new unfavourable development in that

area. In various lines exports to India show reductions in volume ranging from 30 to 50%. British exports to Australia have not shrunk to the same extent as the curtailment of total imports into that country. Exports to the Argentine have also been maintained in fair volume.

The output of coal, iron, steel, and the total of shipping tonnage commenced all show a heavy decline. The Production index, which had registered a serious fall in the second quarter, fell to a very low figure in the third. Compared with the third quarter of 1929 the index has declined by 18%. Quarterly figures are not yet available for other countries but production indices for Germany and the U.S.A. show declines of 22% and 25% respectively between the summer months of 1929 and 1930.

Unemployment increased almost uninterruptedly over the quarter and on September 23rd the number of insured workers unemployed, males and females, was 2,188,000. To allow for changes introduced into the Insurance Act this year the corresponding figure for September, 1929, should be raised by 4%, and the comparable total would be 1,256,000. The percentage figure for unemployment at the end of the quarter was 18·1 for the whole country, the district figures ranging from 8·1 in the South-East to 27·7 in the North-West, Wales and Northern Ireland.

TABLE A. NET IMPORTS OF RAW MATERIALS (EXCLUDING RUBBER) AND CERTAIN PARTLY MANUFACTURED GOODS. DECLARED VALUES. 2 Mn.

	1924. Quarterly Average.		927. rters. 4	1	19 Quar 2	28. ters 8	4	1		929. rters. 8	4	1 Q	1930. uarters. 2	3
Pig iron, etc Copper, tin, lead, zinc Yarns Leather	1.8 5.4 1.8 2.9	1.8 5.1 1.6 2.9	1·8 5·2 1·9 4·4	1.6 5.1 2.0 4.8	1·2 5·2 1·8 3·8	1·1 4·5 1·6 3·7	1·3 5·6 1·9 3·5	1·1 5·0 1·8 2·9	1.4 6.2 2.1 3.1	1·3 5·4 2·0 2·9	1.4 5.8 2.1 4.8	1:6 5:0 1:8 3:0	1.2 4.6 1.5 2.9	1:2 3:9 1:3 2:8
Minerals (non-metals) Iron Ore Other Metals Wood Oil Seeds, &c Hides Paper Materials Silk Other Textiles (except	1:3 2:1 3:7 12:6 12:1 2:0 2:9	1·3 1·3 4·0 19·4 10·1 3·4 3·4 ·4	1:5 1:4 4:2 13:6 9:7 2:6 3:4	1·2 1·3 4·1 6·0 10·6 3·9 2·0 ·5	1:3 1:3 4:1 8:2 11:3 1:6 2:6	1.3 1.1 3.7 15.0 10.8 3.9 2.5	1:3 1:1 4:4 12:6 9:4 1:4 3:0	1·2 1·4 3·9 5·9 11·7 1·2 2·5	1·3 1·5 5·1 7·8 10·7 ·9 3·4 ·4	1.5 1.8 3.7 17.4 9.7 2.9 3.4	1.4 1.8 3.9 13.9 9.8 2.5 3.7	1·3 1·7 3·7 6·9 9·1 2·7 2·9 ·6	1.4 1.6 3.6 9.0 9.2 .8 3.2	1.2 1.0 2.5 15.4 7.3 1.9 3.0
Cotton and Wool) Cotton Wool	3·4 27·5 10·9	1.6 7.9 3.5	4·4 17·0 7·4	5·4 18·1 19·3	2·2 20·2 10·6	1.8 11.6 2.9	3·4 26·5 3·9	4·9 25·2 14·1	3·3 15·4 13·5	2:0 8:6 4:5	4.0 23.6 6.1	4·0 16·3 12·5	2·3 8·7 7·3	1·1 4·6 4·0
Total, both groups and miscellaneous	92.8	70.2	82.0	88*6	77:9	68.7	82.7	85.8	78.5	70.3	88.2	75-7	59:6	54.3
Total. excl. cotton and wool	54.4	59-1	57:6	51.2	47:1	54.2	52:3	46.5	49.6	57:2	58.5	46:9	43.6	45.7

	1924 Qrly. Av.	1927 Quarters. 3	1	Quar 2		4	1	199 Quar 2		4	1	1930 Quarters 2	3.
Coke Barthenware Iron & Steel Other Metals Cutlery Electrical Goods Machinery Wood Cotton Wool Silk Other Textiles Apparel Chemicals Oils Leather Paper Vehicles Rubber	1.6 3.2 18.5 3.9 2.2 2.7 11.2 49.8 17.0 6.9 7.5 6.9 2.2 1.8 2.3 6.7 1.5	1.0 1.0 3.2 3.4 17.5 17.9 4.9 5.0 2.1 2.4 2.9 3.1 12.0 14.1 6.7 36.7 39.2 15.8 14.6 7.7 7.2 6.9 5.6 6.3 2.2 2.6 2.2 2.5 7.7* 10.5* 8.†	3.0 16.6 4.4 2.1 3.0 13.7 .6 39.2 15.6 6.7 6.3 2.5 2.5 2.5 10.3*	7 3:3 16:8 4:5 2:9 13:9 33:8 12:6 7:0 5:8 6:5 2:1 2:4 2:4 11:0†	34 15.7 3.8 2.2 2.8 12.7 6 36.0 16.0 7.3 7.2 2.3 2.1.9* 8†	1·1 3·4 17·6 3·7 2·5 13·6 8 36·5 7·5 6·5 2·7 2·1 2·4 12·7*	1·1 3·1 17·3 4·4 2·1 2·8 13·6 37·6 14·8 ·5·7 6·3 6·4 2·1 1·7 2·8 ·8 ·8 ·8 ·8 ·8 ·8 ·8 ·8 ·8	*8 3 5 7 4 6 6 2 3 3 3 5 8 32 9 11 1 5 5 5 4 4 2 1 1 2 3 13 7 * 9 †	1·1 3·7 16·3 4·6 2·4 3·2 13·3 7·0 7·0 7·0 7·0 2·1 2·1 2·1 2·5 12·5* 9†	1.2 3.7 17.6 4.6 2.5 3.8 14.5 30.9 11.6 6.6 6.7 7.7 2.2 2.1 2.1 2.8 11.7*	1:0 3:3 15:4 3:7 2:0 3:3 13:0 6 30:3 12:2 4 5:9 5:8 6:2 2:1 1:5 2:3 11:0*	31 133 30 1.9 2.9 12.0 21.6 7.2 4.9 4.3 5.6 1.9 1.5 2.1 15.2*	30 119 26 18 31 110 195 97 46 53 51 12 21 116*
Total, including Miscellaneous	154.7	141.1 151.8	147.2	139·4	144.6	147:5	145.1	138.9	146-2	143 [.] 6	128.4	110.3	104.8

^{*} Including rubber tyres.

IRON AND STEEL STATISTICS FOR U.K. 000 tons.

		I	PIG-IRO	ON.				CRUD	E STEE	L.	EXPOR IRON &	
		Produc- tion	+ Im- ports	- Ex- ports	=Home Cons'mp- tion	% Imports to Home Consump- tion	Pro- duction	*Im- ports	Home Con- sumption	% Imports to Home Con- sumption	Semi- Finished	Finished
1913	Qrly. aver ge	2565	46	236	2375	1.9	1916	215	2131	10	209	751
1923	Quart'r 1 2 3 4	1745 2059 1813 1821	41 28 21 11	228 211 137 149	1558 1876 1697 1683	2.6 1.5 1.2 .6	2144 2338 1902 2105	138 141 140 133	2282 2479 2052 2238	6·0 5·7 6·8 5·9	} 512 } 567	1144 1161
1924	1 2 3 4	1918 1877 1774 1750	66 86 50 87	101 165 96 124	1883 1798 1728 1713	3·5 4·8 2·9 5·1	2279 2173 1862 1902	228 296 256 302	2507 2469 2118 2204	9·1 12·0 12·1 13·7	} 481 } 460	1212 1081
1925	1 2 3 4	1724 1655 1386 1471	83 61 60 60	124 109 87 147	1683 1606 1359 1384	4·9 3·8 4·4 4·3	1942 1835 1708 1913	286 290 276 306	2228 2125 1984 2219	12·8 13·6 13·9 13·8	181 179 188 204	589 572 576 662
1926	1 2 3 4	1604 670 44 124	70 53 109 245	136 74 53 13	1538 649 100 356	4.6	2128 741 180 511	296 277 444 544	2424 1018 624 1055	12·2 — —	227 170 98 86	704 562 408 409
1927	1 2 3 4	1688 2051 1833 1731	204 180 108 74	40 70 74 92	1852 2161 1867 1713	8·3 5·8 4·3	2507 2482 2107 2003	562 391 356 373	3069 2873 2463 2376	 13·6 14·4 15·7	213 298 252 241	564 735 768 782
1928	1 2 3 4	1704 1718 1561 1628	45 22 16 9	90 102 89 116	1659 1638 1488 1521	2·7 1·4 1·1 0·6	2184 2105 2034 2202	329 287 252 277	2513 2392 2286 2479	13·1 12·0 11·0 11·2	219 246 243 272	734 702 652 720
1929	1 2 3 4	1674 1924 2018 1963	24 20 29 44	117 130 106 103	1581 1814 1941 1904	1.5 0.9 1.5 2.4	2404 2483 2406 2366	200 268 252 270	2604 2751 2658 2636	7.6 9.7 9.5 10.2	265 237 250 258	737 692 653 716
1930	1 2 3	1923 1797 1328	66 62 62	91 72 52	1898 1787 1337	3·4 3·5 4·6	2374 1988 1653	334 245 118	2708 2233 1771	12:3 10:9 6:7	225 159 150	647 567 506

^{*}Blooms, Billets, Sheet and Tinplate Bars.

[†] Excluding rubber tyres.

SUMMARY OF QUARTERLY STATISTICS.

	1927		19	28			19	29			1930	
TOTALS.*	4th Qr.	lst Qr.	2nd Qr.	3rd Qr.	4th Qr.	lst Qr.	2nd Qr.	3rd Qr.	4th Qr.	lst Qr.	2nd Qr.	3rd Qr.
BANK CLEARINGS: Town (ex Metropolitan) Country Provincial (11 Towns) BANKERS' ADVANCES:	£ Mn. 9541 763 449	£ Mn. 9857 770 448	£ Mn. 10080 757 414	£ Mn. 9371 736 391	£ Mn. 10003 776 420	£ Mn. 10316 764 427	£ Mn. 9514 769 387	£ Mn. 9941 757 386	£ Mn. 10165 790 399	£ Mn. 10292 771 385	£ Mn. 9782 742 333	£ Mn. 9529 720 311
Average for Quarter NEW CAPITAL ISSUES in Gt. Britain:	916	923	934	932	942	968	980	979	971	973	962	938
All For United Kingdom IMPORTS RETAINED:	112·9 51·5	103·4 55·5	99·3	66·6 37·2	93·3 64·7	114·2 69·0	81·3 55·1	28·4 17·5	29·7 17·8	69·5 36·3	72·4 37·4	28·0 19·0
Food, Drink and Tobacco Materials:	142	125	122	122	135	125	120	126	139	114	108	107
Partly Manufactured Cotton Other Total Wholly Manufactured Goods Total Retained Imports	13 17 53 83 61 287	13 18 58 89 60 277	12 20 44 76 60 261	11 12 46 69 61 257	12 26 45 83 61 282	11 25 53 89 60 278	13 15 53 80 66 268	12 9 53 74 65 268	14 24 54 92 65 2 99	11 16 51 78 64 259	10 9 43 62 65 233	9 5 42 56 60 225
EXPORTS, BRITISH: Materials Manufactures—Cotton Other Total British Exports	19 39 113 191	18 39 108 182	18 34 106 173	16 36 109 180	19 36 111 188	19 38 107 181	21 33 107 178	19 34 112 185	20 31 113 186	19 30 98 164	16 22 88 141	15 19 86 136
Goods and Bullion	95	80	100	80	82	92	93	55	125	106	94	87
TONNAGE OF SHIPS (with cargoes): Entered from abroad Cleared for abroad	1509 1552	1349 1511	0000 1541 1606	Tons 1595 1692	1549 1636	1316 1553	0000 1589 1728	Tons 1775 1863	1590 1723	1392 1610	0000 Ton 1659 1656	1756 1738
PRODUCTION:			0000	Tons			0000	Tons			0000 Ton	
Coal (13 weeks) Pig-iron (3 months) Steel ,, ,,	173	6536 170 218	5792 172 211 000	5638 156 203 Tons	6154 163 220	6813 167 240	6265 192 248	6284 202 241 Tons	6701 196 237	7014 192 237	5911 180 199 000 Tons	5634 133 165
Shipbuilding (commenced)	377	342	279	245	432	362	428	360	499	427	230	161
INDEX OF PRODUCTION: Bulletin % of 1924 Board of Trade ,,	107:4	105·7 109·3	103·7 103·6	95·4 100·2	105·2 108·4	108·3 110·5	111:0	108·2 110·6	114·8 113·9	109·6 110·9	100·9 103·4	89.8

^{*} Except Bankers' Advances for which mean weekly averages are given.

INDEX NUMBERS.	Date in	1927		19	28			19	29			1930	
Percentage of 1924 level.*	Quarter	4th Qr.	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	lst Qr.	2nd Qr,	3rd Qr.	4th Qr.	lst Qr.	2nd Qr.	3rd Qr
PRICES OF COMMODITIES— General—Board of Trade Statist	Last month Last day	84·5 87	84·6 89	85·8 88	82·8 84	83·1 85	84·4 87	81 [.] 6	81·7 81	79·7 78·5	74·9 74	72·6 69	69 t
Materials—Board of Trade Statist	Last month Last day	81·1 88	81·1 86	81·3 86	79·8 84	80·0 84	81·2 87	79·1 80·5	79·5 79·5	77·1 76	73·4 .72	70·4 66·5	67 ⁻
Food—Board of Trade Statist	Last month Last day	90·8 86	91·4 93	94·7 92	88·7 84	89·1 85	90·3 86	86·2 83·5	85·8 83	84·6 81	77·7 76	76·6 72·5	74·
Retail—Food Cost of Living	Last day	95 96	91 94	92 94	92 95	93 95	88 92·5	87·5 92	91·5 94·5	92 95	84 90	83 88·5	8
Wage Rates	Fortnight after end	100.5	100	100	99.5	99.5	99.5	99.5	99	99	98.5	98 1	98
PRICES OF SECURITIES— Industrials Speculative Fixed interest	,, ,, ,, ,,	216 194 80:4	239 196 81·6	241 190 81·6	249 210 80·4	259 217 82-1	242 207 79·1	232 210 78-1	228 202 76·5	212 184 77-7	211 192 82-2	198 172 81-7	18 15 82
SHORT MONEY	" "	124	124	120	129	125	158	160	189	136	82	69	ε

^{*} Except for securities which are still on 1913 base.

Value of chief articles exported in the Third Quarters of 1929 and 1930 to the principal countries concerned.

			tuescamente annue	orincipal countries concerned.	orange (reference)	
		3rd (1929	Or. 1930	3rd Qr. 1929 1930	3rd 1 92 9	
		£00	00	£000	£0	00
HAI	OTTERY, ETC. J.S.A Brazil Irgentine British S. Africa British India Australia Lew Zealand Janada Other Countries	212 63 99 65 61 230 115 265 544	138 37 79 48 39 124 109 198 451	RAIL LOCOMOTIVES (Steam and other) Argentine	6927 172 771 2144 434 398 3108	238 11' 200 1180 340 28 165
		1654	1223	MACHINERY (Electrical). To S. Ireland	25081	1317 22
]	IG IRON & FERRO ALLOYS Belgium France Italy U.S.A Other Countries	143 90 40 66 348	51 42 36 45 195	Europe	168 903 84 294 1389	13 47 5 26 84
		687	369	MACHINERY (Prime Movers, not electrical). To S. Ireland†	2838 70	178 5
	CLATES & SHEETS (not coated). Japan British India Australia & New Zealand Other Countries	307 132 210 675 1324	50 78 109 523 760	Russia	670 267 288 300 316 766 794 415 852	57 21 21 26 24 49 45 22
	ALVANISED SHEETS.		70	1314 870 Chile and Peru Rrazil. Uruguay, Argentine	1187	14
	Dutch E. Indies	563 341 139	39 56 73 100 208 106 87	TEXTILE MACHINERY	301 242 145 943 1940	1: 6: 11:
	Other Countries To S. Ireland	2390	577 1246 80	China 178 193 To S. Ireland Japan 287 99 LINEN PIECE GOODS. U.S.A. 150 52 U.S.A. British India 732 622 Cuba Australia 74 39 Brazil and Argentine	430 40	2
5	SHEETS (Tinned, etc.)			Other Countries 197 80 Australia and New Zealand	179	1
	Norway Germany	70	29 106	[18] 가스마스 관계들이 있는 경기 등이 있다면 하나 <mark>하는 것은 ¹ 하는 것은 </mark> 보고 있다면 하다는 것은 것은 하나 보다 하나 있습니다.		3
	France	134 121 118 97 87 185 78	169 81 133 88 87 163 112 90 104	COTTON YARN. 149	71 243 147	2 1 7
	Argentine British India Straits Setts. and Malay	144	40	U.S.A 161 42 Brazil 78 56 To S. Ireland	2148 348	
	Australia	250 123	238 129 723	Argentine 55 36 British India 549 176 BOOTS AND SHOES. Australia 146 93 British S. Africa Canada 80 52 New Zealand Other Countries 666 452 Other Countries	213	1
	COPPER MANUFACTURES			4947 3205 To S. Ireland	940	
	Egypt	8 96 57 66	94 27 99 231	COTTON PIECE GOODS. 478 455 LEATHER. Germany	. 122 . 90 . 724	
	TIN (Blocks, etc.) Sweden	. 180 188 . 884 . 30	23 99 161 69 167	China (with Hong Kong) 1359 237 To S. Ireland	99 18 7	9 0 6 5 8

SUMMARY OF QUARTERLY STATISTICS.

	1927		19	28			19	29		f	1930	
TOTALS.*	4th Qr.	Qr.	2nd Qr.	3rd Qr.	4th Qr.	lst Qr.	2nd Qr.	3rd Qr.	4th Qr.	lst Qr.	2nd Qr.	3rd Qr.
BANK CLEARINGS: Town (ex Metropolitan) Country Provincial (11 Towns)	£ Mn. 9541 763 449	£ Mn. 9857 770 448	£ Mn. 10080 757 414	£ Mn. 9371 736 391	£ Mn. 10003 776 420	£ Mn. 10316 764 427	£ Mn. 9514 769 387	£ Mn. 9941 757 386	£ Mn. 10165 790 399	£ Mn. 10292 771 385	£ Mn. 9782 742 333	£ Mn. 9529 720 311
BANKERS' ADVANCES: Average for Quarter NEW CAPITAL ISSUES in Gt. Britain:	916	923	934	932	942	968	980	979	971	973	962	938
All For United Kingdom IMPORTS RETAINED:	112·9 51·5	103 [.] 4 55 [.] 5	99·3 61·8	66·6 37·2	93·3 64·7	114·2 69·0	81·3 55·1	28·4 17·5	29·7 17·8	69·5 36·3	72·4 37·4	28·0 19·0
Food, Drink and Tobacco Materials:	142	125	122	122	135	125	120	126	139	114	108	107
Partly Manufactured Cotton Total Wholly Manufactured Goods Total Retained Imports	13 17 53 83 61 287	13 18 58 89 60 277	12 20 44 76 60 261	11 12 46 69 61 257	12 26 45 83 61 282	11 25 53 89 60 276	13 15 53 80 66 268	12 9 53 74 65 268	14 24 54 92 65 2 99	11 16 51 78 64 259	10 9 43 62 65 233	9 5 42 56 60 225
EXPORTS, BRITISH: Materials Manufactures—Cotton Other Total British Exports EXCESS OF IMPORTS:	19 39 113 191	18 39 108 182	18 34 106 173	16 36 109 180	19 36 111 188	19 38 107 181	21 33 107 178	19 34 112 185	20 31 113 186	19 30 98 164	16 22 88 141	15 19 86 136
Goods and Bullion	95	80	100	80	82	92	93	55	125	106	94	87
TONNAGE OF SHIPS (with cargoes): Entered from abroad Cleared for abroad	1509 1552	1349 1511	0000 1541 1606	Tons 1595 1692	1549 1636	1316 1553	0000 1589 1728	Tons 1775 1863	1590 1723	1392 1610	0000 Ton 1659 1656	1756 1738
PRODUCTION:			0000	Tons			0000	Tons			0000 Ton	
Coal (13 weeks) Pig-iron (3 months) Steel ,, ,,	173	6536 170 218	5792 172 211 000	5638 156 203 Tons	6154 163 220	6813 167 240	6265 192 248	6284 202 241 Tons	6701 196 237	7014 192 237	5911 180 199 000 Tone	5634 133 165
Shipbuilding (commenced)	377	342	279	245	432	362	428	360	499	427	230	161
INDEX OF PRODUCTION: Bulletin % of 1924 Board of Trade ,,	107-4	105·7 109·3	103·7 103·6	95·4 100·2	105·2 108·4	108·3 110·5	111.0	108·2 110·6	114·8 113·9	109·6 110·9	100·9 103·4	89.8

^{*} Except Bankers' Advances for which mean weekly averages are given.

INDEX NUMBERS.	Date in	1927		19	28			19	29			1930	
Percentage of 1924 level.*	Quarter	4th Qr.	lst Qr.	2nd Qr.	3rd Qr.	4th Qr.	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	lst Qr.	2nd Qr.	3rd Qr.
PRICES OF COMMODITIES— General—Board of Trade Statist	Last month	84·5	84·6	85·8	82·8	83·1	84·4	81·6	81·7	79·7	74·9	72·6	69·5
	Last day	87	89	88	84	85	87	81	81	78·5	74	69	65
Materials—Board of Trade Statist	Last month	81·1	81·1	81·3	79·8	80·0	81·2	79·1	79·5	77·1	73·4	70·4	67·0
	Last day	88	86	86	84	84	87	80·5	79·5	76	.72	66·5	62
Food—Board of Trade	Last month	90·8	91·4	94·7	88·7	89·1	90·3	86·2	85·8	84·6	77·7	76·6	74·4
Statist	Last day	86	93	92	84	85	86	83·5	8 3	81	76	72·5	70
Retail—Food	Last day	95	91	92	92	93	88	87·5	91·5	92	84	83	84
Cost of Living		96	94	94	95	95	92·5	92	94·5	95	90	88·5	89
Wage Rates	Fortnight after end	100.5	100	100	99.5	99.5	99.5	9 9·5	99	99	98.5	984	98₺
PRICES OF SECURITIES— Industrials Speculative Fixed interest	33 33	216	239	241	249	259	242	232	228	212	211	198	185
	33 33	194	196	190	210	217	207	210	202	184	192	172	152
	34 33	80-4	81.6	81-6	80·4	82·1	79·1	78·1	76·5	77.7	82-2	81 7	82-5
SHORT MONEY	,, ,,	124	124	120	129	125	158	160	189	136	82	69	65

^{*} Except for securities which are still on 1913 base.

Value of chief articles exported in the Third Quarters of 1929 and 1930 to the principal countries concerned.

				principal countries concerned.		
and the second		3rd (1929)r. 1930	3rd Qr. 1929 1930	3rd 1929	Or. 1930
		£00	0	£000	£00	00
	POTTERY, ETC. U.S.A Brazil	212 63	138 37	RAIL LOCOMOTIVES (Steam and other) Argentine 174 90 Rest of S. America 87 41 Straits Settlements & Malay	6927 172	2384 117
	Argentine British S. Africa	99 65	79 48	British S. Africa 48 71 States	771	206
	British India Australia	61 230	39 124	British India 321 176 Australia Other Countries 184 329 New Zealand	2144	1186 340
	New Zealand Canada	115 265	109 198	814 707 Other Countries	398 3108	288 1658
	Other Countries	544	451			
		1654	1223	MACHINERY (Electrical). To S. Treland	25081	225
				S. America 156 124 WOOL TOPS & WORSTED		
	PIG IRON & FERRO ALLOYS Belgium	143	51	British India 292 271 Sweden	168 903	132 475
	France Italy	90 40	42 36	Australia	84 294	59 269
	Italy U.S.A Other Countries	66 348	45 195	1464 1476 Other Countries	1389	846
		687	369	MACHINERY (Prime Movers, not electrical). To S. Ireland†	2838 70	1781 52
	PLATES & SHEETS (not	1		Russia 41 45 WOOL & WORSTED TISSUES	030	
	coated).	307	50	Spain 24 18 Germany Rest of Europe 349 43 Netherlands	670 267	576 216
	Japan British India Australia & New Zealand	132 210	78 109	S. America 98 67 France	288 300	219 268
	Other Countries	675	523	British India and Ceylon	316 766	243 494
		1324	760	About Commence 1 ZA7 1 ZZO 8 daught see see see	794 415	453 222
	GALVANISED SHEETS.			U.S.A	852 180	299 145
	Dutch E. Indies	77	39	Brazil, Uruguay, Argentine	1187 301	7 9 2 203
	Argentine, Uruguay British W. Africa	65 85	56 73	TEXTILE MACHINERY. Russia 269 164 Australia	242 145	66 127
	British S. Africa British India	254 563	100 208	Netherlands 126 130 Callanda	943	615
	Australia	341 139	106 87	Rest of Europe 510 361		1147
	Other Countries	866	577	China 178 193	9606	6085 151
	To S. Ireland	2390 81	1246 80	U.S.A 139 60 LINEN PIECE GOODS	430	209
	10 S. Heland			S. America 150 52 U.S.A. British India 732 622 Cuba Australia 74 39 Brazil and Argentine	40 138	17 104
	CONTRACTOR (FD: A A _)			I (ther (tountries 197 St) Aughrelia and New Zesiaud	1779	122
	SHEETS (Tinned, etc.) Norway	147	29 106		390	54 320
	Germany Netherlands	70 214	169		1239	826
	France	121	81 133	Germany and Poland 1700 1274 APPAREL		
	Italy Dutch E. Indies China (with Hong Kong)	118	88 87	Belgium 199 143 Australia	1 11	484 14
	China (with Hong Kong) Japan	87 185	163 112	France 156 127 New Zealand Switzerland 349 192 Canada	243 147	223
	Brazil	78	90 104	Bulgaria 41 30 Other Countries	990	763
	British India	144	40	U.S.A 161 42 Brazil 78 56 To S. Ireland	2148 348	1597 340
	Anetralia	250	238 129	Argentine 55 36 ROOTS AND SHOES	-	
	Canada Other Countries	123 739	723	Australia 146 93 British S. Africa		144 152
		2731	2336	- Canada 80 52 New Zealand Other Countries 666 452 Other Countries		366
				4947 3205 To S. Ireland	940	
	COPPER MANUFACTURES Egypt	8	20	LOOMMONT DIROR COODS	392	390
	Egypt British India Australia New Zealand	57	94 27	Germany 307 264 Germany		
	New Zealand Other Countries	66	99 231	Netherlands 370 199 France	724	193
		579	471	- Turkey 346 130 Other Countries Rest of Europe 914 802		-
	TIN (Blocks, etc.)			China (with Hong Kong) 1359 237 To S. Ireland	1551 99	739 100
	Sweden		47 23	U.S.A 547 213 Party & Chile 560 291 PAPER.		1
	France	188	99	Brazil 126 93 Foreign Countries	. 180	
	Uanada	_30	69	Argentine, Uruguay 1617 1185 British India Colombia 318 155 Australia and New Zealand Egypt 703 548 Other British Possessions	. 808 144	472
	Other Countries		167	British S. W. & E. Africa 1750 1366	100	
		1720	566	Foreign W. & E. Africa 566 406	100	102

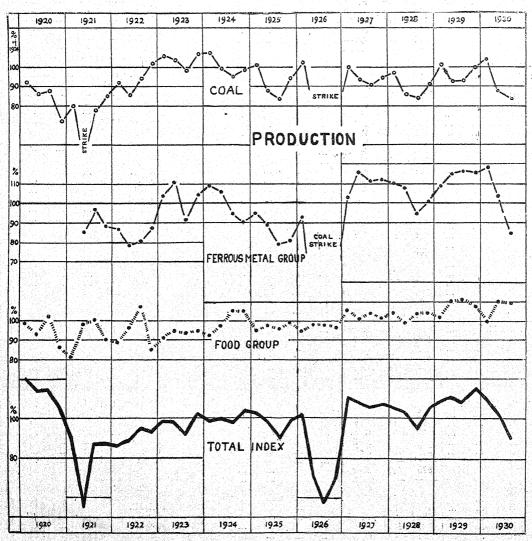
THE PHYSICAL VOLUME OF PRODUCTION.

for the third quarter of Production for the third quarter of 1930 is 89.8; this is 11 points lower than the figure for the previous quarter and 18 points lower than the corresponding figure of the third quarter 1929, and 5 points lower than the corresponding figure of 1928. Normally we should anticipate a seasonal drop from the second to the third quarter in the Index of Production; the extent of this drop was, in 1924, 2.0 points; in 1925, 8.1; in 1927, 2.2; in 1928, 8.3; in 1929, 2.8. These previous recorded declines are all

less than the II point fall in the 1930 figures, and we can only conclude that the seasonal movement does not wholly account for the extent of the present decline, but that the general trend downwards noticeable last quarter still continues.

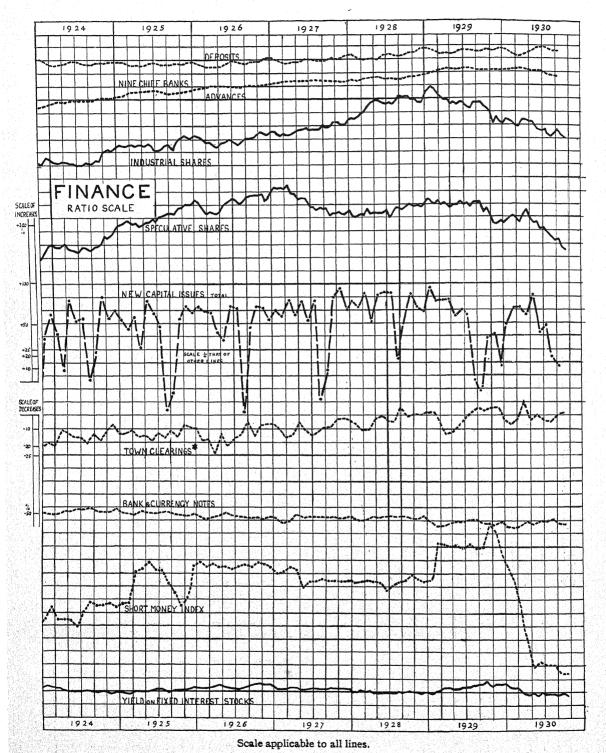
The decline is noticeable in the Coal, Iron and Steel and Textile figures. The Chemical figure is again low. On the other hand, the Non-ferrous Metal group figure maintains a high level, though not so high as in 1929, and the Food Index is still at the same level as in previous quarters.

QUARTERLY INDEX OF PRODUCTION.



QUARTERLY INDEX NUMBERS OF PRODUCTION. Average 1924=100.

Group	Industry	Average quarterly production, 1924.	Weights.	Year. (1924	15	1926	1927	1928	1929	1930
	1 .		<u>1</u> 1	Ors. 10 2 3 9 3 9 9 9 9						
	Coal- mining.	000 tons 67,308	232	107.3 99.3 95.0		102:5 29:8 10:4	90.00 90.8 90.8	97.1 86.1 83.8 91.4	101.2 93.1 93.3	The same of the sa
	Pig Iron,	000 tons 1,827	12	105.0 102.8 97.1	94.4 90.6 75.9	87.8 36.7 2.4 8.8	91.8 112:3 100:3	93-3 94-0 85-4	91.6 105:3 110:5 107:5	105·1 98·4 72·7
	Steel.	000 tons 2,050	36	111.2 106.0 90.8 92.8	94-7 89-5 83-3 7-3	103 :8 36 :1 8 :8 8 :8	122:3 121:1 102:8 97:7	106·5 102·7 99·2 107·4	117.0 121.1 120.0 115.4	118-4 97-0 82-5
H.	Ship- building	000 tons 1,373	e; e;	100.0 106.7 103.1 90.1	79:5 74:1 67:6 57:4	55.6 55.6 48.6	87.2 100.6 111.8 14.7	104·9 87·6 79·4 90·5	98:8 105:9 105:4 113:6	117.6 101.4 81.4
	Ship- Railway building Vehicles	tons 9,929	ō	142.7 112.9 78.3 66.1	167.9 150.0 111.9 98.5	188.6 149.1 94.0 82.6	67.0 155.7 196.3 244.6	199·3 265·1 154·2 126·2	139-9 131-6 152-8 145-9	149.0 180:8 151:2
	Group		341	109.0 106.2 94.6 90.6	95·1 89·2 79·4 81·1	92.8 49.4 25.1	103.4 116.0 111:3	110:1 107:7 100:8	109:1 114:8 116:4 115:9	118·1 104·1 85·2
	Copper	tons 39,626	99	96.9 93.8 104.1 105.0	97.4 95.7 104.8 94.3	110.9 95.8 118.8 116.7	119-7 132-0 112-4 125-9	125.8 126.1 120.6 118.2	117.4 120.8 114.7 120.1	103·1 121·1 129·4
1111	Lead, Tin and Zinc.	tons 87,967	69	96.4 87.3 118.5 97.7	102:3 108:9 117:0 124:9	123.8 111.1 110.4 121.5	131·6 115·8 124·4 114·2	109.9 120.0 94.3 106.5	106:1 120:3 120:4 109:7	119-7 113-7 100-4
	Group Index.		25	96·6 90·4 111·6 101·2	100.0 102.6 111.2 110.3	117·6 105·8 114·4 119·2	125.9 123.5 118.7 119.8	117·5 122·9 106·9 112·1	111.5 120.5 117.7 114.7	111.8 117.2 114.3
	Cotton.	bales 689	88	104.2 90.4 79.7 126.0	136.9 120.6 101.6 135.1	135.0 102.8 81.7 107.2	142.8 120.2 109.6 109.3	114.4 109.0 92.9 115.0	117.6 111.4 85.8 118.6	107·3 86·4 61·3
	Silk.†		OT	74.6 94.3 111.5 119.5	112:2 152:0 81:9 79:3	92.7 96.5 86.3 105.0	108·2 101·8 96·9 147·6	151·1 136·6 140·8 158·0	147·3 142·2 162·3 175·0	159.0 125.0 107.5*
	Group Index.		216	101.0 90.8 83.2 125.3	124.2 124.0 99.5 129.0	130.4 102.1 82.2 107.0	139.0 118.2 108.2 113.5	118.4 112.0 98.1 119.7	120.8 114.7 94.1 124.5	112.9 90.6 66.3*
	Wheat and Flour.	000 cwts. 31,914	90	85.4 99.6 111.6 103.3	89.2 89.3 88.4 91.1	82.2 87.0 97.9 84.0	92.4 103.6 98.0 92.3	93.2 86.4 92.7 91.8	87.0 94.9 100.1 91.4	81.3 91.8 99.8
	Cocoa.	cwts. 259,231	<i>LII</i>	109.6 89.6 88.7 112.1	109.9 113.3 99.2 112.1	119·3 114·4 87·6 113·9	144·3 82·4 102·8 101·3	121.4 103.7 102.5 101.0	115.3 116.7 103.4 108.3	99.9 121.7 96:5
	Tobacco	000 lbs. 36,477	.7%	95.6 99.7 101.9 102.7	96·3 105·2 110·2 108·5	102.5 112.7 104.8 112.8	107.2 110.0 118.7 121.9	116·9 124·3 127·7 133·6	123.3 139.1 141.1 142.1	138.3 136.7 138.0
	Group Index.		509	92:5 97:8 104:9 104:8	94.8 97.8 96.0 99.4	95.3 98.6 97.8 96.8	105.7 101.4 104.2 101.6	104.4 99.3 103.5 104.2	101.9 110.6 111.3 107.9	99.8 110.3 109.3
	Oil Seed crush- ing.	000 tons 435·3	1	109.9 97.8 87.8 104.5	118·2 91·1 95·0 84·6	92.8 84.6 80.4 59.7	82.8 77.5 66.8 70.6	98.8 99.8 79.5 72.7	109.2 86.0 69.7 87.7	79.7 69.2 59.1
٧١.	Group Index (incl. heavy Chemi-		62	95.4 103.0 101.0 101.2	107·6 94·4 82·4 87·4	90.0 79.5 72.6 84.4	107.0 92.6 92.8 97.9	104.8 103.8 93.3 102.7	100.1 102.1 103.4 105.4	94.5 88.8 88.2*
	Paper.	000 tons 244.3	88	53.7 104.9 127.2 114.2	77·3 99·4 108·6 111·2	91.7 114.4 114.8 103.5	109.0 112.1 126.4 124.2	82.4 118.0 99.8 122.9	111.2 136.6 139.7 147.0	116·3 127·0 125·4
	Final Index		1183	98.8 99.9 97.9 103.8	102.6 98.2 90.1 99.1	102.2 72.0 57.3 69.7	110.8 108.1 105.9 107.4	105.7 103.7 95.4 105.2	108:3 111 0 108:2 114:8	109.6 100.9 89.8



* NORMAL SEASONAL CHANGE REMOVED.

FINANCE.

	STOCKS & SHARES. Index Numbers of				NE		BANK CLEARINGS.			OTHER BANKING.								ρį	MONEY.			
	P	rice of	1	of Yield on	ISSU			n Bank ing Ho		Pro- vincial	Ban Engl				9 Clean				BILLLS	Index.	rate.	rate.
	20 industrials	8 speculative	4 fixed int	4 fixed int.	for U.K.	for Abroad.	Tov	vn.	Country.	11 Towns.	Private Deposits.	Bank and Currency Notes. t	Deposits.	Discounts.	Advances.	invest.	Ratio of Cash to Deposits.	Ratio of Advances to Deposits.	TREASURY	Short Money I	Day to day	3 months' r
	Per ce	nt. of p	re-war	level	£Mn	£Mn.	£M	[n.	£Mn.	£Mn.	£Mn.	£Mn.	£Mn.	£Mn.	£Mn.	£Mn.	%	%	£Mn.	Sh	%	%
1924 Average 1925	160	157	80.7	124	7:4	11.2	2070	*	226	147	109	390	1632	242	791	324	11.7	48.5	601	100	2.43	3.45
1st Qr. Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	179 179 176 188	185 186 196 209	81·9 80·3 80·2 78·8	122 124 125 126	13·8 14·6 3·8 11·9	5·3 7·8 3·1 13·1	2230 2140 1950 2140	2130 2080 2100 2230	235 235 221 234	150* 140* 135 146	114 107 112 110	382 386 385 379	1634 1609 1619 1631	227 199 231 237	827 849 841 841	289 273 257 261	11.8 11.9 11.9 11.8	50·6 52·7 52·0 51·5	611 573 615 641	116 138 125 119	3·10 3·96 3·41 3·42	4·03 4·46 4·08 4·01
1926 1st Qr. Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	187 182 184 193	205 207 219 224	78·6 78·5 78·6 77·4	127 127 127 129	14·7 8·1 8·5 15·7	11·3 9·8 6·2 10·2	2070 2100 1990 2150	1970 2040 2150 22 50	231 219 205 226	141 123 117 128	107 103 108 104	371 381 374 371	1610 1600 1634 1662	209 195 226 225	866 875 874 887	255 244 247 251	11·7 11·9 11·8 11·8	53·8 54·6 53·5 53·4	611 578 6 24 667	140 137 137 140	4·15 3·92 3·95 4·02	4·54 4·37 4·40 4·63
1927 JAN FEB MAR APR MAY JUNE	191 192 194 200	237 235 241 226 220 214	79·8 79·6 78·8 78·6 79·6 78·8	126 126 127 127 126 127	10·3 15·4 27·7 13·1 23·9 12·4	16·0 6·5 7·0 9·2 ·6 7·6	2285 2190 2210 2380 2170 2210	2180 2070 2100 2310 2170 2090	240 225 289 244 240 229	135 134 136 132 134 126	112 102 102 97 100 98	368 359 365 380 373 378	1694 1653 1632 1642 1650 1685	244 220 196 196 197 207	898 902 910 912 913 915	252 243 239 236 237 237	11.6 11.5 11.7 11.6 11.8	53.0 54.6 55.8 55.6 55.3 54.3	675 649 603 568 569 592	133 135 138 136 120 125	3·79 3·85 4·08 3·92 3·63 3·50	4·23 4·14 4·33 4·23 3·62 4·35
JULY AUG SEPT OCT NOV DEC	. 201 . 205 . 213 . 211	206 208 206 198 200 196	79·0 79·0 78·9 78·8 79·1 78·9	127 127 127 127 127 127	16·3 2·1 3·2 14·8 23·2 13·6	18.6 1.8 22.9 25.6 12.8	2040 1940 2140 2260 2280 2190	2 160 2220 2230 2340 2360 2380	239 219 213 242 236 236	135 129 123 144 137 138	100 100 100 102 99 102	377 376 374 376 373 378	1682 1669 1668 1710 1694 1729	233	920 918 915	236	11·5 11·4 11·3	53.7	593 617 617 641 648 664	125 128 126 125 125 125	3·47 3·85 3·67 3·60 3·56 3·60	4·34 4·32 4·31 4·34 4·31
1928 JAN FEB MAR APR MAY JUNE	. 217 . 225 . 239 . 246	194 193 194 196 197 197	80·4 80·2 80·6 81·6 81·7 81·4	124 123 123	25.8	19.6 5.3 23.0 8.0 13.5 16.0	2370 2290 2300 2440 2400 2440	2270 2170 2180 2370 2410 2310	247 235 229 252 246 229	140 137 137 143 134 122	110 101 104 102 95 103	364 367 376 372	1747 1698 1672 1690 1688 1731	196 197 199	918 930 935 937	244 235 233 232	11.0 11.1 11.1	54·1 55·6 55·3 55·5	520 535	124 124 126 124 123 117	3·40 3·56 3·79 3·75 3·63 3·17	4·29 4·20 4·17 4·03 3·96 3·74
JULY AUG SEPT OCT NOV DEC	243 248 249 245	190 204 201 210 206 204	81.6 80.5 80.7 80.4 81.1 81.4	124 124 124 123	5.5 7.6 29.7 17.0	1.0 10.7 10.9 11.0	2190 2230 2300 2350 2350 2330 2320	2540 2390 2430 2410	246 223 211 244 236 245	132 116 117 130 125 140	105 103 99 100 99 67+3	374 374 369	1749 1732 1732 1753 1752 1806	254 244 248 248 248	932 930 939 942	244 243 243 241	7 11·1 1 11·2 3 11·0 1 11·0	53.8 52.7 53.6 53.8	609 622 654 703	120 124 126 130 125 123	3·38 3·48 3·69 4·06 3·52 3·25	3·95 4·28 4·25 4·33 4·38 4·36
1929 JAN FEB MAR APR JUNE	262 247 242 240	217 209 207 207 208 214	82·1 80·6 79·1 79·1 79·2 78·4	124 127 127 127	26·2 24·8 28·8 12·3	9:0 9:0 8:8	2230 2210 2 250	2310 2120 2150 2250	237 253 241	131 138 136 127 118 122	584-3 63+3 61+3 61+3	7 361 6 353 8 355 6 359 6 363 6 362	1809 1777 1739 1743 1732 1770	260 214 5 191 2 195	968 980 987 987	246 244 244 244	10.5 10.6 10.8 10.8	56.4 56.4 56.6 56.4	774 712 707 702	125 162 160 158 159 156	3·54 5·06 4·58 4·44 4·69 4·23	4·31 5·23 5·38 5·27 5·23 5·28
JULY AUG SEPT OCT NOV DEC	238 238 228 205	211 202 182	76·2 76·5 77·2	130 2 131 5 131 2 130	2·2 1·5 7·5 6·3	1:4 1:2 4:0 6:6	2250 2410 2440 2450	2560 2510 2530 2530	226 224 248 242	129 112 114 123 123 127	65+3 63+3 70+3 55+4	66 371 66 362 67 360 62 358	1778 1759 1754 1768 1751 1773	221 221 5 221 231	5 980 2 973 7 973 L 970) 242 L 242 L 241) 238	2 10·7 2 10·9 1 10·7 5 10·6	7 55·7 9 55·4 7 55·0 3 55·4	776 772 787 792		4·73 4·13 4·21 5·27 5·38 4·64	5·33 5·47 5·49 6·22 5·66 4·80
JAN FEB MAR APR. MAY JUNE .	206 200 211 208	192 182 192 187	78-3 80-2 82-2 81-2	5 128 2 128 2 129 2 123	8 16 9 11 9 17 8	18·2 9·4 9·4 20·1	2400 2770 2340 2360	2280 2630 2280 2360	236 234 249 235	119 121 120 114 104 102	159 + 3	56 352 55 348 56 350 56 361 56 356 55 364	176 1714 1682 1712 1742 1788	218 2 18 2 20 2 24	3 973 1 976 7 970 3 957	229 229 229 229 7 231	9 10.6 5 10.8 5 10.9 1 10.7	56.8 58.0 56.7 54.9	678 615 7 571 9 585	125 104 82 68		2.14
JULY . AUG SEPT OCT	187 198	164 165	81.8	5 L23	3 3.5	3.1	2100	2400	224	95	70+3 66+3 65+3 66+3	367	1794 1767 1764	7 27	9 936	3 250	0 10.6	5 53	0 64	69 65	1.96	2.0

STOCKS & SHARES-NEW CAPITAL ISSUES-BANK CLEARINGS-

BANK OF ENGLAND-PRINCIPAL BANKS-TREASURY BILLS-SHORT MONEY INDEX- Index Nos. of Prices and Yield as percentage of 1913 average; on 15th of month.—PREPARED BY JOSEPH KITCHIN.

Issues during month in Gt. Britain (a), for U. K. (b), for Abroad, excluding Government loans, etc.—See MONTHLY REVIEW OF THE MIDLAND BANK, LID.

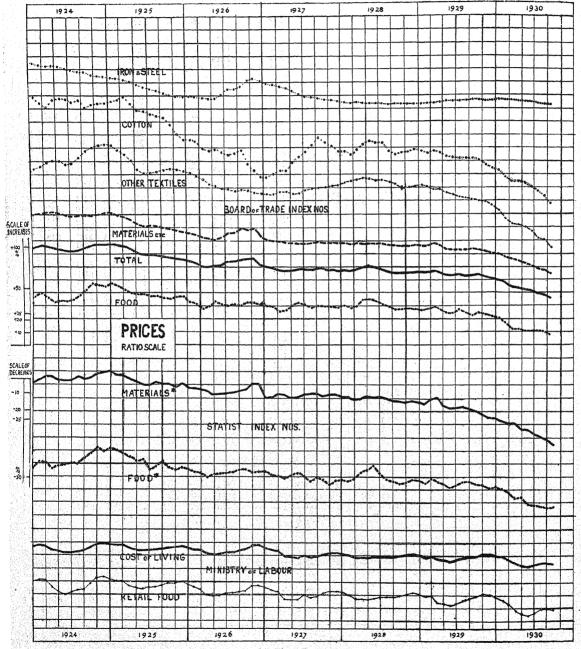
Total of Town Clearings (i.e., excluding Metropolitan) of London Bankers' Clearing House for 3 weeks covering 2 Stock Exchange settlement days, Consols settlement day, and 4th of following month. Country Clearings of London Bankers' Clearing House and Provincial Clearings for 11 towns—proportionate totals for 24 working days. Deposits, other than public, 11th-17th of month.

Bank Notes and Currency Notes in circulation 11th-17th of month. Issues amalgamated, November 22nd, 1928. "Current, Deposit and other accounts," etc. Averages for the month of 9 clearing banks (i.e.—excluding the National Bank, Lid.).—MONTHLY REVIEW OF THE MIDLAND BANK, LITD.

Total outstanding in middle of month (11th-17th).

Average of Bank Rate, Bankers' Deposit Rate, 3 Months' Bill Rate and day-to-day rate for week ending 15th of month, expressed as percentage of 1924 average.

Day-to-Day Rate and 3 Months' Rate. Averages for week ending 15th of month.



Scale applicable to all lines.

¥ NORMAL SEASONAL CHANGE REMOVED.

PRICES AND WAGES.

U.S.A. PRICES.

				WHOLESA	LE.	***************************************	-		RETA	IL.	WAGES.	BUREA	U OF L	ABO
	Bar Silver (Cash).	Board of General,	f Trade Ind Food.	Materials.	Statis Foo		eck) Index 1		M, of L	abour. Food.	New Index of Average	Wholesale Index General	Retail Index (Food)	Cost off Living
	d. per oz.	%	%	%	%	%	Materials.	Total.	Living.	%	Weekly Wages	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	1.0	
1924	34.0	1 100	100	100	100	*	100	100	100	100	100**	% 100	% 100	10
Average.						^		200	100	250	100	200	100	
1925 st Qr. Av	32.2	101.6	105.6	99.4	105	104	101	103	101	102	100.5	106.5	104.5	
ad ,, ,,	31.4	96.0	100.6	93.6	97	97	96	97	99	98	101	104	104	10
d ,, ,, h ,, ,,	32·4 32·3	93·9 92·0	98·3 97·2	91·6 89·2	96 93	96 94	96 95	97 95	100 101	100 101	100·5 100·5	106 106	110	1
1926	0.00	020	0, 5	00 11		54	33		101	101	100 5	100	113	-
t Qr. Av	31.0	88.6	92.8	86.3	91	90	92	92	98	96	100.5	104	111	
nd ,, ,,	30·2 29·1	87·2 90·2	93·1 92·5	84·1 89·0	92 93	91 93	89 90	90 91	96 98	94 95	100·5 100	102	110	1
h ,, ,,	25.2	90.4	93.9	88.5	90	92	94	92	101	99	100.5	101 100	107 111	1
1927														
AN EB	25·5 26·4	86·4 85·8	92·3 91·6	83·3 82·7	90 89	90 89	88 89	89 89	98 98	. 96 95	101 101	98.5	109	
AR	25.4	84.6	88.4	82.6	89	88	88	89	94	95 91	101	98 96	107 108	
PR	26·1 26·0	84.2	89.1	81.5 81.3	91	89	87	89	94	90	101	95.5	105	-50
AY UNE	26.3	84·9 85·3	91·9 93·9	80.8	92 90	91 89	87 87	89 89	93 95	90 93	100·5 100·5	95°5	106 [.] 5	1
ULY	25.9	84.9	92.4	81.1	87	86	88	88	94	92	100	96	105	
UG EPT	25·1 25·6	84·8 85·5	90·9 92·2	81·7 82·1	88 86	88	89	88 87	94 95	92 95	101	97	104	
CT	25.7	85.1	91.7	81.7	83	87 84	88 89 89	87	97	96	101 100·5	98 99	105·5 107	
OV	26·6 26·8	84.9	91.4	81.6	85	87	89	87 87	97 96	96 95	100.5	99	107	
EC 1928	20.0	84.5	90.8	81.1	86	87	88	01	90	90	100.5	99	107	1
1928 AN	26.4	85.0	92.1	81.3	86	86	87	87	95	93	100.5	98	106	
EB AR	26·3 26·3	84·3 84·6	91·1 91·4	80·9 81·1	89 93	88	86 86	87 89	94 94	91 91	100	98 98	104 103·5	
PR	26.2	86.1	95.4	81.3	94	9 2 93	88	90	94	90	100 100	99	104	
[AY	27.4	86.4	95.8	81.6	97	96	86	91	94 94	92 92	100	100.5	105.5 105	
UNE	27.5	85.8	94.7	81.3	92	91	86	88	94	92 92	100	99.5	105	
ULY UG	27·2 27·3	84·9 83·8	91·9 90·7	81·3	88 85	87 86	85 84	87 85	94	92	100 99·5	100 101	106	
EPT		82.8	88.7	79.8	84	84 85	84	84	95	92	99.5	102	108	
OCT NOV,	26·8 26·7	83·1 83·0	89·2 89·3	79·9 79·7	84 85	80 86	84 85	84 85	95 96	93 94	99·5 99·5	100 99	107 108	
EC		83.1	89.1	80.0	85	86	84	85	95	93	99.5	99	107	1
1929	00.4	07.0	00.7	00.7	05	95	04	04	04	01.5	00.5		700	
AN EB		83·2 83·3	88·7 89·4	80·3	85 87	85 87	84 86	84 86	94 95	91·5 92	99·5 99·5	99 98.5	106 106	
IAR	26.0	84.4	90.3	81.2	86	85	87	87	92.5	88	99.5	99.5	105	
PR IAY	25·9 25·3	83·4 81·7	88·5 86·3	80·7 79·3	86 82·5	85 81:5	82 80 [.] 5	84 81	92 91·5	87·5 86	99·5 99·5	98·5 97·5	104 105	
UNE	24.3	81.6	86.5	79.1	83.5	82.5	79.5	81	92	87.5	99.5	98.5	106	
ULY		82.7	89.4	79.2	86	85	80.5	83 82	93	90	99.5	100	109	
UG EPT	24·2 23·8	81·8 81·7	86·8 85·8	79·1 79·5	84·5 83	85 84	80 79·5	82 81	93·5 94·5	90·5 91·5	99·5 99	99.5 99.5	110 110	
CT	23.0	81.9	87.2	79.1	82.5	83.5	78	80	95.5	93.5	99	98	110	1
OV DEC	22.6	80·6 79·7	85·6 84·6	78·0 77·1	80 81	81·5 82	76 76	78 78·5	95·5 95	93·5 92	99 99	96 96	109 [.] 5	1
1930	I								4				1 77	
AN	21.1	78.8	83-4	76'3	80.5	80.5	74	77	94	90.5	99	95.2	106.2	
FEB, IAR,		76·9 74·9	81:0 77:7	74·7 73·4	79 76	79 75:5	73 72	75 74	92 90	88 84	98·5 98·5	93 9 92 6	105 103	
PR	19.5	74.4	77.6	72.6	77	76	70	73	89	82	98.5	92.5	104	
IAY UNE	. 19·2 . 16·3	73·3 72·6	76·5 76·6	71.5 70.4	73 72·5	72 71:5	69 66.5	71 - 69	88·5	81 83	98·25 98·25	90 8 88 5	103 101	
ULY	 Part Control Street Street 	71.7	76.4	69.2	72	71	65	68	89.5	84.5	98.25	85.6	99	
\UG	. 16.3	70.9	75.9	68.2	69·5	70	64	66	89.5	84.5	98:25	85.6	33	
EPT	. 16.8	69· 5	74.4	67.0	70	70.3	62	65	89	81	98·25 98·25	85.8		1
CT							The state of the state of the	 * * * * * * * * * * * * * * * * * * *					4 - 2 4 - 1 - 4	. C . C

PRICE OF SILVER-

STATIST (SAUERBECK) INDICES— COST-OF-LIVING INDEX-

RETAIL FOOD PRICES-WARES INDEX-

Average (cash) price of bar silver for week ending 15th of month.—ECONOMIST.

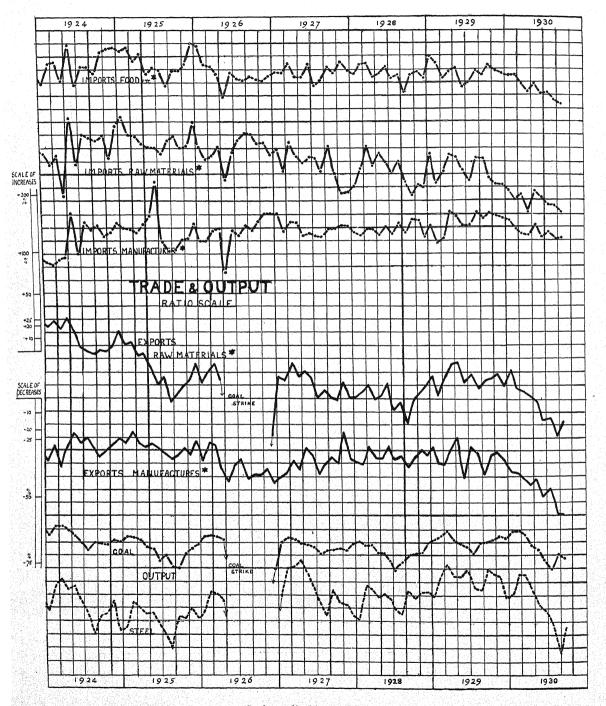
BOARD OF TRADE INDEX—Geometric Mean of Wholesale Prices (averages for month) of 150 commodities as percentage of 1924 average.

—BOARD OF TRADE JOURNAL.

Average wholesale prices of 19 foodstuffs and 26 raw materials on last day of month, as percentage of average for 1924.—STATIST.

Ministry of Labour's index showing movement since 1924 in cost of maintaining unchanged the standard of living prevalent in worldag-class households before the war. For 1st of month, but placed against previous month—e.g., reading for March Ist is shown against February—to facilitate comparison with "Statist" index. As above, for food only.

For description see Special Mem. No. 28.



Scale applicable to all lines.

* NORMAL SEASONAL CHANGE REMOVED.

TRADE AND OUTPUT.

		TOTAL IMPORTS (Values).								EXP	RTS (OF U	K. GC	ods	(Values)	- 1	OUTPUT.		Γ.	SHIP. B'LD'G	
	For Drink Toba	and		aw erials.	Ma facti		(incl)	tal iding aneous)	TOTAL. NET IMPORTS.	Fo Drink Tobs	and	Ra Mater			nu- ures.	Tot (include Miscella	ding	Coal.	Pig Iron.	Steel.	Tonnage Com- menced
	£Mn.		£Mn		£Mn.		£Mn.		£Mn.	£Mn		£Mn.		£Mn		£Mn.		Tons Mn.	Tons 000	Tons 000	Tons 000
1924 Average	47.6	*	33.3	*	25.0	×	106.4	*	94.8	4.7	*	8.9	英	51.6	¥	66.8	*	21.2	520	641	263
1925 1stQr.Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	45.4 44.7	51.2 47.0 43.8 49.2			26·8 31·3 23·1 25·4	26·4 31·4 23·3 25·7	117·3 108·6 96·1 119·2	116·2 112·6 101·9 110·8	104·0 95·4 84·3 105·4	4·7 4·1 4·5 5·0	5·7 4·7 4·1 4·2	8·1 6·9 6·1 7·0	8·2 7·1 6·1 6·7	55·3 49·0 50·0 51·2	54:4 51:6 48:4 51:0	69·6 61·3 62·2 64·6	69·9 64·7 60·1 63·4	21·3 19·2 17·8 19·7	537 509 422 448	608 589 524 597	202 190 261 161
1926 1stQr.Av 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	40·8 43·8	49·1 42·3 43·0 42·9	28.4	36.1	24·2 26·3	25·1 24·2 26·5 29·2	107·1 93·7 101·0 112·5	106·4 97·4 106·0 106·1	94·8 83·9 92·4 101·6	4·2 3·6 4·3 4·6	5·1 4·2 3·9 4·0	6·7 3·8 2·0 3·2	6·9 4·0 2·0 3·2	50·9 40·9 45·0 42·5		63·2 49·5 52·6 52·0	63:5 52:5 50:8 51:1	21·5 —† —	499 207 13 38	665 245 56 161	193 168 68 152
1927 JAN FEB MAR APR MAY JUNE	44·2 38·2 46·9 41·3 41·9 46·9	45.0 45.0 47.9 43.5 43.5 47.6	39·5 29·5 35·2 30·7 28·2 27·0	28·2 34·7 31·3 30·0	29.6 25.6 30.9 28.4 25.9 25.1	29·9 26·4 28·1 28·0 25·5 25·8	113.6 93.9 113.5 100.8 96.4 99.3	108:3 100:2 111:1 103:2 99:4 104:9	103·7 83·0 102·7 88·8 84·0 88·7	4·1 3·8 4·3 3·6 4·3 3·6	4·9 4·9 5·0 4·4 4·9 4·1	6.6 6.2 7.3 6.3 7.4 6.3	6.7 6.5 7.3 6.7 7.0 6.6	43·7 41·6 49·1 41·5 50·3 44·9	43·1 47·2 44·2 51·5	55·4 52·9 62·1 52·6 63·3 56·0	54:5 55:8 60:9 56:5 64:7 60:1	20·7 21·4 21·1 20·6° 20·4 20·0°	393 571 607 635 650 608	684 827 836 870 811 715	} 580 } 437
JULY AUG SEPT OCT NOV DEC	48·7 52·1	40·5 42·1 46·8 44·5 48·4 45·3	26.6 22.3 26.4 28.4 28.2 30.0	28·1 33· 7 27·9	24·7 26·5 27·6 26·7	26·7 26·9	93·4 90·1 101·4 105·0 107·4 105·4	97.0 95.8 107.6 99.6 100.5 97.9	83·7 81·3 93·4 95·5 96·9 95·1	4·3 4·4 4·7 5·0 5·4 4·7	4.0 4.0 4.0 4.2 4.7	5.8 6.9 5.2 6.8 5.8	5.7 6.1 5.8 5.7 6.5 5.8	44·8 47·7 48·8 48·7 57·2 45·8	45·8 48·2 46·2 57·6	56·1 59·4 60·6 61·2 70·6 58·8	53:9 57:2 59:3 57:2 69:7 60:4	18·9 19·4° 19·5 19·8 19·6 20·6°	583 538 552 539 538 505	643 590 712 655 641 591	} 370 } 377
1928 JAN FEB MAR APR MAY JUNE	41.7	44·2 47·4 47·9 43·1 44·3 46·6		29·1 31·8	25·3 29·2	26·5 26·4 25·4	100·4 98·8 110·5 96·8 99·4 99·4	95.7 102.0 108.2 99.1 102.6 105.0	90·1 87·2 99·2 85·8 87·6 87·9	4·3 4·5 4·2 3·8 4·0 3·8	5·1 5·6 4·9 4·7 4·6 4·2	5.8 6.0 6.3 5.3 6.2 6.1	5·8 6·0 6·3 5·7 5·9 6·4	48:3 45:5 53:4 45:0 46:4 48:0	45.5 51.4 47.9 47.6	59·7 57·2 65·0 55·3 58·6 59·5	58·5 58·3 63·7 59·6 60·1 63·7	20.7 20.1 20.2 19.3° 19.2° 18.2	506 532 535 526 534 526	574 731 712 675 690 664	} 342 } 279
JULY AUG SEPT OCT NOV DEC	44.6 40.3 48.2 48.3	43·1 44·1 39·2 44·0 44·9 42·8	24·0 24·3 20·6 24·2 29·9 30·9	30·5 26·2 23·8 25·6	25·5 27·4 25·6 29·1 27·3 24·4	27·8 25·8 28·4 28·2	95·5 97·7 87·7 102·7 106·8 101·5	98·5 103·8 92·4 97·4 99·9 94·0	87.0 88.9 80.8 93.8 96.0 92.4	4·4 4·8 4·8 5·3 5·6 4·6	4·1 4·4 4·1 4·2 4·3 4·6	5·4 5·6 4·9 6·2 6·1 6·3	5.3 5.6 4.8 5.7 6.0 6.3	49·2 50·1 45·2 50·8 49·9 46.8	48.2 44.7 48.1 50.3	63.8	58.6 59.9 55.3 60.0 62.8 62.1	16.9 17.8° 18.8 19.0 19.2 20.5°	486 469 470 491 508 492	611 594 702 665 699 699	
1929 JAN FEB MAR APR MAY JUNE	49.6 40.0 42.1 42.6 44.2 39.6	50·5 47·0 42·9 44·9 45·9 40·3	39·1 27·0 28·5 30·9 29·2 24·5	28·1 31·5 31·1	26·8 23·1 27.2 30·2 29·2 26·4	23·9 24·7 29·7 28·9	116·5 90·9 98·6 104·1 103·4 91·5	110·5 97·3 96·5 106·5 106·8 96·7	106·7 80·5 88·6 93·8 93·0 81·9	4·2 4·0 3·8 5·0 4·6 3·9	5·0 5·1 4·4 6·0 5·2 4·4	6.6 5.6 6.6 6.8 7.8 6.1	6.7 5.8 6.6 7.3 7.4 6.4	44·3 47·0 47·1 53·4	45·2 50·2 54·7	58·6 60·2 67·4	65.7 58.6 57.4 64.8 68.9 53.5	21.0 21.5 22.2° 20.8 20.3° 19.9	571	673 775 841 773 773 812	} 428
JULY AUG SEPT OCT NOV DEC	51·2 48·5	45·1 43·9 46·8 45·0	27·3		28.2		93.6 101.0 98.4 110.3 108.2 106.6	96.6 107.3 104.1 104.7 101.2 99.0		4·7 4·5 4·8 5·4 5·7 4·9	4.4 4.1 4.1 4.3 4.4 4.9	6.9 6.0 6.5 7.1 6.9 6.2	6.7 6.1 6.4 6.5 6.8 6.2	42.5 50.3 48.6	3 48·8 2 41·7	63·0 55·1 64·6 63·1		18·9 20·3° 20·4 20·6 21·3 20·9*	620 622 589		360
1930 JAN FEB MAR APR MAY JUNE	37·3 40·0 36·7 39·6	40·8 38·7 41·1	24.1	24.6 22.9 23.8 21.0 24.6 23.6	28·1 25·6 27·7	28.2 26.6 25.6 25.3 27.4 25.1	101·9 88·2 93·4 83·9 91·0 83·4	97·4 94·4 91·4 85·9 9 3 ·7 87·8	79.6 85.8 76.1 82.0	4·6 3·7 4·0 3·6 3·8 3·2	5.5 4.7 4.7 4.4 4.3 3.6	6·9 5·8 6·0 5·4 5·8 4·7	7·0 6·1 6·0 5·8 5·6 4·9	41.9 42.9 36.1 39.8	5 40.9 7 3 9.1 3 40.8	51.9 53.9 46.9 51.0	57:5 54:6 53:0 50:5 52:3 45:8	22:1 22:1 21:5 19:9° 19:3 18:0°	555	776 773 696 621	427 230
JULY AUG SEPT	39.2 37·2 36·7	\$8.6 36.7 35.7	19-1	22·1 22·0 21·1	24.2	26·0 24·6 24·8	85·2 79·9 78·7	87.6 84.3 82.5	73.6	4·4 4·0 4·2		5·2 4·4 5·0			7 38·1 31·8 31·7	42.8		16.9 18.6° 18.2	397	441	161

[†] Trade Dispute

* NORMAL SEASONAL CHANGE REMOVED.

IMPORTS & EXPORTS—

Declared values of imports (c.i.f.) into U.K., and exports (f.c.b.) of U.K. produce and manufacture. Net Imports = Total imports less exports of imported goods.—MONTHLY ACCOUNTS OF TRADE & NAVIGATION.

Total for 4 weeks ending approximately at end of month.—BOARD OF TRADE JOURNAL.

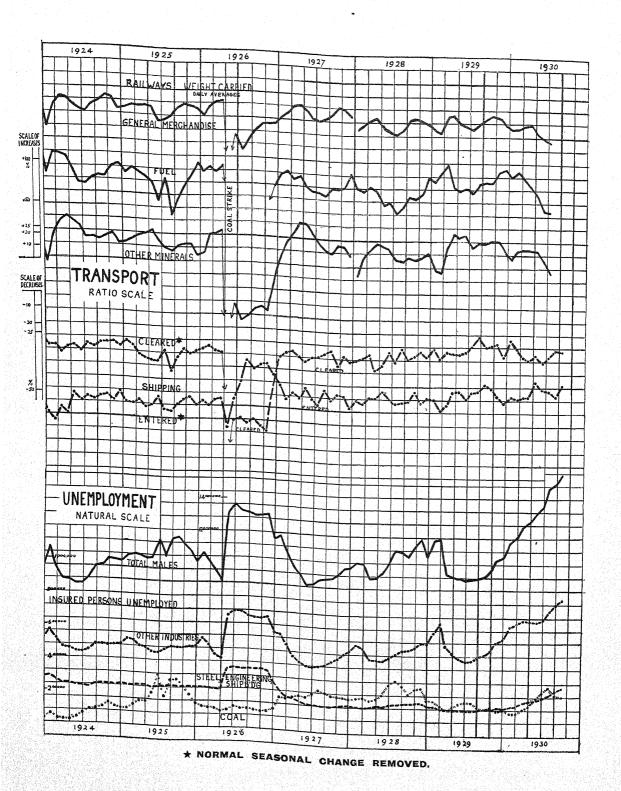
PIG IRON, STEEL OUTDUT for standard four-week month based upon monthly figures issued by the NATIONAL FEDERATION OF INGOIS & CASTINGSIRON AND STEEL MANUFACTURERS.

SHIPBUILDING—

Tonnage of ships over 100 tons (excluding warships) commenced during the quarter.—I.I.OYD'S REGISTER OF SHIPPING.

[‡] Total for Qr. ° 4 Weeks, excluding holiday week.

^{*} Excludes Christmas week, but includes New Year.



TRANSPORT.

UNEMPLOYMENT.

	SHIPPING.					RAIL	WAYS				INSUR (Gr	ED PI eat Bri	ERSO1	NS UN	EMPLe h Irelai	OYED.1	all hald and global decided		
	Tonnage	of Ships	Inde	x of		Freight ard Ga		ilways.			1 _: 1	Mal	• (Fem		
	Entering British	argoes). Leaving Ports.	Time Charter Rates,	Freight Rates.		Meight Finel		Re- ceipts. All Goods,	Total.	Coal.	Iron & Steel.	Engineering.	Shipbuilding	Building and Construction.	Cotton and Wool.	§ Other Industries.	Total.	Cotton and Wool.	
	0000 tons	0000 tons	%	%	, -	000 ton		£Mn	000	000	000	000	000 83	000	000	000	000	000	
1924 Average 1925	461 ×	544 ★	100	100	544	1743	551	8.89	941	72	52	116	78	99	35	344	263	62	
1st Qr. Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	417 <i>464</i> 465 <i>463</i> 489 <i>450</i> 479 <i>472</i>	507 545 516 500 523 502 531 532	105 92 89 94	95 82 78 87	544 514 528 551	1733 1517 1491 1713	539 538 517 512	8·88 8·31 8·53 8·89	1034 1058 1107 1063	125 219 250 191	59 62 64 58	100 95 96 95	83 81 85 90	108 77 83 110	27 31 39 26	371 351 355 345	286 273 290 241	45 60 73 42	
1926 1st Qr. Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	422 <i>469</i> 453 <i>451</i> 644 <i>594</i> 618 <i>606</i>	507 545 364 363 343 330 352 354	91 103 138	79 78 98 138	546 429 445 4 96	1778 667 336 1056	544 376 331 365	9·10 5·81 5·64 7·92	1003 1186 1314 1259	119 109 108 111	50 108 132 108	97 121 135 134	88 90 96 100	117 94 109 139	31 59 69 49	348 454 511 460	243 335 376 307	49 106 130 86	
1927 JAN FEB MARCH APRIL MAY JUNE	500 541 409 491 481 514 477 496 533 534 522 496	495 <i>525</i> 462 <i>535</i> 538 <i>547</i> 519 <i>524</i> 552 <i>509</i> 538 <i>627</i>	111 110 116 116 116 116	103 105 103 96 99	522 504 602 525 561 511	1758 1689 1816 1598 1666 1552	491 511 625 578 640 576	9·04 9·03 10·20† 8·70 9·54 8·77	1180 1075 991 951 889 898	200 198 205 218 210 232	48 40 36 41 38 39	109 96 86 81 73 70	83 71 65 58 52 51	160 136 106 90 78 79	37 28 23 25 23 24	*386 355 327 307 293 287	272 240 197 182 170 172	60 44 34 39 38 40	
JULY AUG SEPT OCT NOV DEC	531 475 576 528 520 496 544 513 500 508 465 467	561 531 565 544 572 556 529 501 529 537 492 516	101 101 103 103 103 101	84 86 91 92 94 92	515 538 556 570 568 511	1564 1565 1656 1620 1674 1721	548 534 520 542 548 483	8·85 9·00 9·36 9·38 9·31 8·65	925 927 935 963 1003 1005	257 243 228 223 221 206	41 42 41 46 50 52	66 66 70 70 70 67	48 49 47 45 47 46	85 88 104 125 144 171	28 29 29 31 34 29	290 297 297 298 307 305	189 203 191 193 207 189	49 52 44 49 54 45	
1928 JAN FEB MARCH APRIL MAY JUNE	458 495 416 483 474 505 484 504 528 529 529 502	493 523 475 532 538 546 486 491 550 507 570 559	96 92 90 90 90	86 83 84 84 81 83	500 510 552 480 519 488	1639 1609 1734 1445 1506 1483	452 506 559 501 564 543	8:60 8:78 9:48 8:07 8:65 8:31	1043 1026 944 945 979 1053	210 215 199 208 245 298	45 43 45 47 44 45	67 67 66 68 66 66	43 44 46 48 50 55	177 157 122 114 103 109	29 26 26 27 28 35	331 331 307 304 314 318	218 202 183 183 189 221	47 41 42 46 49 66	
JULY AUGSEPT. OCT. NOV. DEC.	563 <i>530</i> 481 <i>489</i>	549 519 597 575 547 532 570 540 549 558 516 541	90 91 98 103 116 119	83 87 87 92 98	488 505 510 574 540 475	1412 1481 1486 1636 1629 1625	514 508 494 537 528 483	8·19 8·41 8·50 9·34 8·98 8·19	1122 1114 1089 1148 1189 1088	324 295 250 279 281 212	51 51 48 47 47 47 42	67 72 72 70 74 70	57 57 62 67 66 61	114 116 127 141 159 163	40 44 43 39 37 34	341 348 349 354 367 353	255 261 266 255 264 246	81 83 79 71 66 60	
1929 JAN FEB MAR APRIL MAY JUNE	457 488 516 537	541 574 462 535 552 559 551 558 601 554 575 563	113 109 108 108 108 104	96 95 89 88 86 81	522 448 515 532 525 484	1832 1711 1849 1613 1646 1566	492 424 519 584 596 562	9·13 8·26 9·27 8·95 8·94 8·39	1189 1197 980 960 956 942	212 170 147 175 198 203	43 42 36 37 37 39	76 72 64 64 65 61	56 52 50 46 46 46	206 252 141 116 104 100	37 38 34 39 37 38	388 393 350 332 325 315	277 257 224 222 221 221	63 60 56 63 69 72	
JULY AUG SEPT OCT, NOV DEC	. 588 <i>539</i> . 589 <i>562</i> . 583 <i>549</i>	618 585 648 625 596 580 622 589 586 595 517 542	109 116 119 104 96 88	83 83 84 77 77 77	524 513 523 579 536 477	1682 1688 1660 1811 1845 1756	606 573	9·05 8·82 8·88 9·69 9·33 8·24	947 951 961 1005 1061 1075	202 173 162 165 153 156	41 40 39 41 47 45	61 66 68 68 70 70	47 49 51 51 49 48	103 108 121 143 172 181	40 41 36 36 40 42	314 331 335 339 356 359	231 247 243 249 265 269	78 78 69 69 69 73	
1930 JAN FEB MAR APRIL MAY JUNE	. 427 513 . 484 517 . 498 518 . 579 579	579 614 495 574 534 542 526 532 598 551 534 523	83 84 84 86 86 66	66 64 61 66 58 62	527 468 512 484 501 436	1755 1563 1621	503 540 506 465	9·13 8·41 8·92 8·19 8·65 7·27	1173 1209 1267 1301 1357 1396	138 142 155 177 235 254	48 47 55 64 63 63	79 85 91 98 100 107	49 50 55 55 58 62	197 195 177 160 147 147	56 63 67 71 85 91	411 425 456 465 461 469	348 374 427 460 499 515	104 121 135 151 185 202	
JULY AUG SEPT	564 517	571 541 589 567 579 563	71 71 79	61 70 68	483	1480	485	8-20	1519 1546 1605	301 252 246	71 80 83	114 125 137	65 70 76	160 166 178	102 105 103	499 532 552	551 573 584	213 217 207	

[†] Increase on pre-war rates raised from approx. 50% to 60% on Feb. 1st, 1927.

* NORMAL SEASONAL CHANGE REMOVED. § Excludes Commerce, etc.

TRANSPORT:
SHIPPING—ENTERED
AND CLEARED SHIPPING FREIGHTS-RAILWAY TRAFFIC— WEIGHT

RECEIPTS

UNEMPLOYMENT-INSURED PERSONS- Tonnage of British and Foreign vessels entering and leaving British ports with cargoes during month,—ROARD OF TRADE MONTHLY ACCOUNTS OF TRADE & NAVIGATION. Chamber of Shipping index numbers as published by "The Statist."—PREPARED BY DR. ISSERLIS.

Tonnage of goods carried on the Railways of Great Britain during the month, excluding free-hauled.

Monthly Receipts for goods traffic, excluding cost of collection and delivery the January, 1928, then excluding receipts for collection and delivery.—MINISTRY OF TRANSPORT.

Number of books lodged at Labour Exchanges on or about 25th of month.

MINISTRY OF LABOUR GAZETTE

[‡] Excluding any disqualified for benefit by trade dispute.

FOREIGN EXCHANGES.

MARKET OF PERSONS ASSESSED.	AVERAGE OF DAILY RATES.												
	Paris f. to £	Milan l. to £	Berlin M. to £	Amster- dam fl. to £	Prague kr. to £	Berne f. to £	Stock- holm kr. to £	NewYork \$ to £	Buenos Aires d. to \$	Rio de Janeiro d. per mil.	Bombay d.perrup.	Hong- kong d. per \$	Kobe d.peryen
Parity	124.514	92·46§	20.43	12.107	24.02	25.2215	18-159	4.866	47.58	27	18		24.58
JAN. FEB. MAR. APRIL MAY JUNE	132·4 135·8 143·4 154·3	120·3 120·8 120·0 120·9 126·2 132·4	20·40 20·43 20·41 20·42 20·42 20·44	For 191 12:09 12:14 12:13 12:12 12:09 12:11	9 to 1925 163.9 164.2 164.0 164.1 164.1 164.2	RATES S 25.05 25.25 25.25 25.19 25.12 25.13	18:13 18:13 18:16 18:12 18:15 18:16 18:15	4·858 4·864 4·861 4·862 4·862 4·866	46.54 46.03 44.64 44.84 45.10 45.27	7:36 7:32 7:16 6:94 7:31 7:78	18·20 18·19 18·08 17·88 17·93 17·91	28·75 28·63 27·85 26·94 27·35 27·42	21:80 22:42 22:41 23:04 23:20 23:14
JULY AUG SEPT	197.7 171.4 *169.9 165.2 141.8	145.0 147.5 132.5 118.3 115.1 109.4	20·43 20·40 20·38 20·379 20·415 20·387	12·10 12·11 12·112 12·124 12·125 12·130	164·2 164·0 163·8 163·7 163·7 163·8	25·12 25·14 25·120 25·120 25·141 25·106	18·15 18·15 18·15 18·147 18·170 18·155	4·864 4·858 4·855 4·850 4·849 4·851	45·48 45·42 45·62 45·90 45·74 46·16	7.68 7.59 7.51 6.92 6.40 5.87	17:93 17:96 17:98 17:89 17:84 17:85	27·06 26·45 26·05 23·83 23·56 23·46	23·30 23·63 23·93 24·04 24·30 24·23
JAN FEB MAR APRIL MAY JUNE	. 123·63 . 124·01 . 123·98 . 123·97	111.6 112.3 107.7 97.05 89.96 86.94	20·454 20·466 20·468 20·490 20·501 20·494	12·135 12·123 12·130 12·140 12·136 12·124	163·8 163·7 163·9 164·0 163·9 163·9	25·176 25·220 25·235 25·251 25·253 25·244	18·171 18·174 18·144 18·135 18·157 18·128	4·853 4·850 4·854 4·857 4·857 4·856	46·40 46·93 47·51 47·55 47·56 47·69	5·80 5·87 5·87 5·83 5·80 5·84	18:03 17:97 17:96 17:88 17:93 17:91	24·17 24·79 24·01 24·50 24·32 24·21	24·15 24·20 24·31 23·90 23·26 23·09
JULY AUG SEPT OCT NOV DEC	124.01 124.00 124.03 124.00	89·04 89·32 89·35 89·12 89·47 90·69	20·450 20·431 20·433 20·408 20·422 20·435	12·119 12·129 12·135 12·116 12·075 12·073	163·9 164·0 164·0 164·3 164·4 164·7	25·220 25·212 25·222 25·249 25·272 25·277	18·128 18·116 18·094 18·084 18·098 18·080	4·8552 4·8606 4·8634 4·8700 4·8740 4·8825	47·76 47·85 47·95 47·90 47·83 47·82	5·83 5·87 5·87 5·91 5·89 5·91	17:87 17:87 17:97 17:97 17:99 18:10	24·15 23·68 23·83 23·95 24·43 24·63	23·31 23·37 23·14 22·96 22·65 22·71
1928 JAN FEB MAR APRIL MAY JUNE	124.01 124.01 124.01	92·17 92·07 92·37 92·55 92·65 92·76	20·461 20·431 20·412 20·412 20·399 20·417	12.086 12.109 12.124 12.110 12.098 12.098	164·5 164·5 164·64 164·71 164·72 164·67	25·302 25·336 25·339 25·332 25·327 25·317	18·138 18·161 18·180 18·183 18·193 18·186	4·8758 4·8750 4·8801 4·8821 4·8817 4·8805	·47·83 47·88 47·86 47·81 47·80 47·66	5·92 5·93 5·93 5·92 5·92 5·89	18·10 18·00 18·00 18·00 18·01 17·95	24·69 24·44 24·40 24·42 25·05 24·66	23·09 23·08 23·20 23·47 22·94 22·95
JULY AUG SEPT OCT NOV DEC	124·23 124·18 124·14 124·11	92·81 92·74 92·74 92·61 92·57 92·66	20·384 20·364 20·356 20·363 20·354 20·360	12.084 12.101 12.097 12.096 12.082 12.078	164·13 163·76 163·65 163·63 163·64 163·72	25·255 25·211 25·200 25·200 25·190 25·178	18·161 18·134 18·130 18·138 18·143 18·132	4·8642 4·8538 4·8508 4·8498 4·8495 4·8525	47·43 47·41 47·34 47·34 47·47 47·36	5.90 5.91 5.91 5.92 5.91 5.89	17:91 17:95 18:06 , 18:06 18:07 18:062	24·54 24·50 24·36 24·55 24·59 24·51	22.65 22.29 22.69 22.88 22.96 22.75
JAN FEB MAR APRIL MAY JUNE	124·23 124·24 124·21 124·14	92.67 92.70 92.68 92.70 92.65 92.67	20·402 20·447 20·455 20·475 20·415 20·335	12·091 12·115 12·117 12·090 12·067 12·074	163.83 163.84 163.85 163.93 163.85 163.73	25·207 25·231 25·229 25·214 25·190 25·198	18:138 18:155 18:170 18:173 18:154 18:113	4.8503 4.8525 4.8529 4.8534 4.8510 4.8485	47·42 47·39 47·28 47·28 47·24 47·17	5:91 5:90 5:86 5:87 5:87 5:87	18:056 18:013 18:008 17:965 17:912 17:854	24·49 24·08 24·08 23·92 23·68 23·66	22.56 22.38 22.05 22.08 22.11 21.77
JULY AUG SEPT OCT NOV DEC	123·87 123·89 123·85	92·74 92·74 92·69 93·00 93·16 93·24	20·359 20·360 20·361 20·397 20·389 20·386	12:086 12:103 12:093 12:098 12:087 12:096	163·90 163·83 163·76 164·41 164·57 164·47	25·221 25·203 25·164 25·176 25·151 25·109	18·100 18·101 18·101 18·141 18·149 18·102	4:8511 4:8488 4:8479 4:8695 4:8777 4:8817	47·23 47·21 47·20 46·82 46·26 45·86	5.87 5.88 5.87 5.86 5.80 5.56	17:818 17:830 17:869 17:871 17:886 17:936	23·89 23·87 23·73 21·73 21·18 20·52	22·54 23·13 23·42 23·58 24·01 24·10
1930 JAN FEB MAR APRIL MAY JUNE	. 124·26 . 124·10 . 123·90 . 123·81	93.05 92.87 92.84 92.78 92.71 92.76	20·387 20·366 20·382 20·375 20·365 20·372	12:102 12:123 12:125 12:097 12:081 12:086	164·58 164·26 164·11 164·16 163·97 163·85	25·163 25·198 25·136 25·094 25·108 25·084	18:136 18:124 18:106 18:092 18:111 18:095	4·8695 4·8621 4·8632 4·8634 4·8599 4·8588	45·12 42·70 42·24 43·61 43·02 41·67	5.52 5.55 5.72 5.81 5.86 5.63	17:931 17:907 17:862 17:860 17:835 17:816	19·47 18·66 18·24 18·40 17·67 15·45	24·23 24·28 24·38 24·38 24·39 24·41
JULY	. 123.82	92·88 92·98	20·383 20·387	12:092 12:089	164·05 164·17	25:044 25:047	18·097 18·112	4·8652 4·8708	40:84 40:67	5:34 4:87	17·821 17·790	15·41 15·88	24·39 24·37
Week endin Sep. 6 ,, 13 ,, 20 ,, 27 Oct. 4 ,, 11 ,, 18	. 123·77 . 123·81 . 123·72 . 123·78 . 123·82 . 123·85	92·89 92·82 92·81 92·80 92·79 92·80 92·81	20·397 20·409 20·399 20·410 20·414 20·423 20·435	12.081 12.077 12.067 12.052 12.048 12.047 12.059	163·98 163·81 163·77 163·75 163·76 163·76	25·042 25·056 25·049 25·050 25·038 25·011 25·007	18.098 18.094 18.100 18.091 18.090 18.091 18.092	4·8643 4·8617 4·8606 4·8599 4·8593 4·8581 4·8590	39·53 41·17 40·80 40·19 39·63 38·81 37·71	4·81 4·96 5·00 5·10 5·18	17:786 17:784 17:784 17:792 17:796 17:825 17:844	16.08 15.89 15.79 15.96 15.79 15.82 15.90	24·39 24·41 24·41 24·42 24·45 24·47 24·48

^{† 25&#}x27;2215 before June 24th, 1928,

^{§ 25&#}x27;2215 before December 22nd, 1927.

[|] Zurich from November 12th, 1929.

Moleogenous. 2.3.37

ROYAL ECONOMIC SOCIETY

ISSUED BY ARRANGEMENT WITH THE LONDON AND CAMBRIDGE ECONOMIC SERVICE

MEMORANDUM No. 26

REPORT ON CURRENT ECONOMIC CONDITIONS

January, 1931

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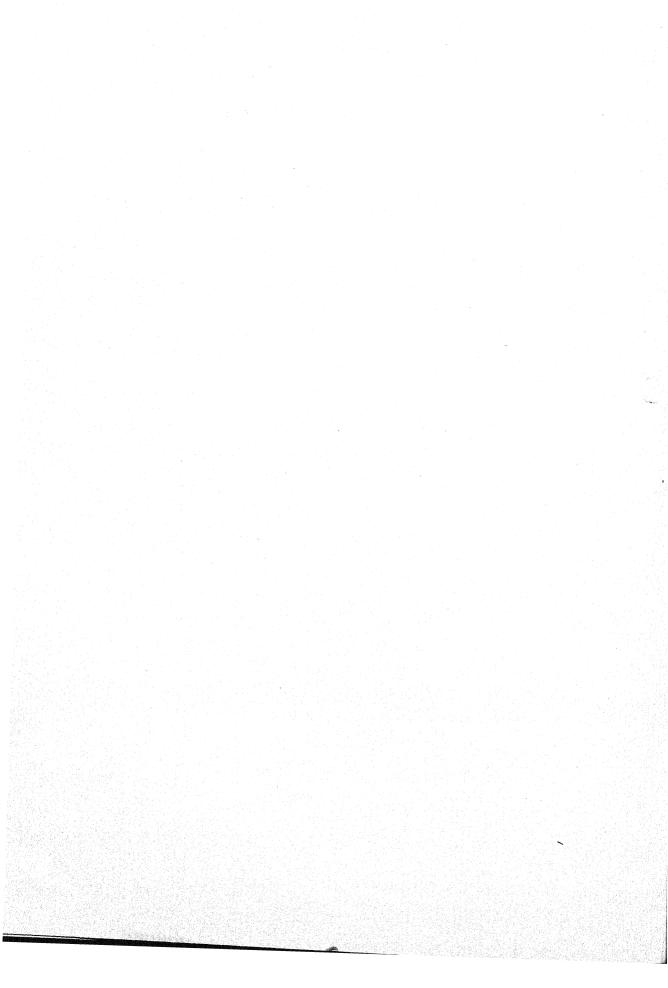
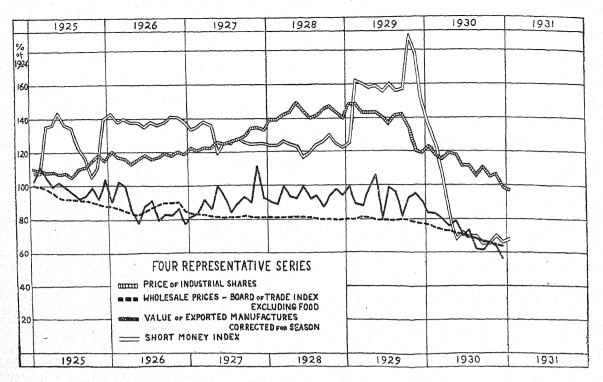
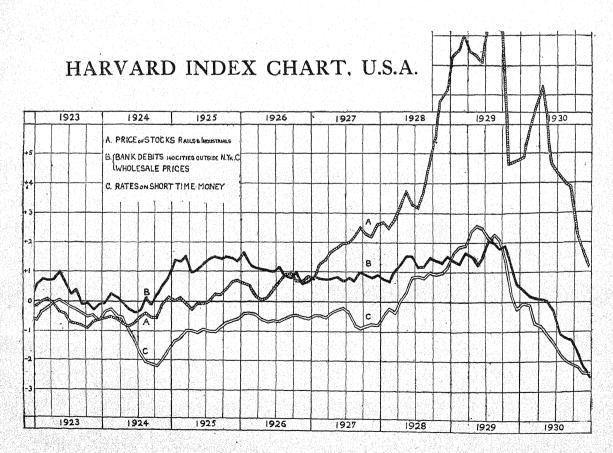


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INDEX CHART, U.K.





THE GENERAL BUSINESS POSITION.

UNITED KINGDOM.

January 21st, 1931.

The completed statistics for 1930 enable us to form an idea of the extent to which the depression has now reached. The general index of production which we publish reads 19% lower in the past quarter than a year ago; but it is probable that this overestimates the fall which may well have been greater in the industries covered than in others for which information is lacking. Even within that region some industries have done fairly well, while others, such as steel, shipbuilding and cotton, show a great fall. For the same period the reduction in the number of all insured persons employed is only about 8%. The exports statistics of manufactures show a fall of about 33%, or probably about 25% if the change in prices is allowed for. While this recession of industry is sufficiently serious, it should be remembered that so far as information goes other countries have in some respects suffered greater losses, and also their competitive power has not been, at least' generally, increased by wage reductions.

There is perhaps now no further large region of production into which the depression may spread, but it may deepen in industries not yet seriously affected. The fall of wholesale prices has continued with little interruption for fifteen months, the prices of industrial securities have also fallen, though not so continuously; unemployment has increased every month; exports of manufactures diminished in most categories. In the last quarter there was a fall in imports of materials; imports of food, on the other hand, have been maintained, and there is not serious distress except in some special districts. With the expectation of a considerable deficit in the year's revenue, anxiety is felt about the Budget, and till that is settled enterprise will be hindered. There are wage reductions in prospect both on the railways and in occupations whose rates are affected by movements of the Cost of Living Index, but the negotiations make for uncertainty. There was no sign of an upturn at the end of the year, and with the special difficulties mentioned above, the prospect for the first quarter at least is very discouraging.

UNITED STATES. HARVARD FORECAST. {By Cable }

January 17th, 1931.

Recent changes in business volumes have been slight and inconclusive, but, whether considered by industries or by sections of the country, they at least showed in December a less uniform tendency to decline than had characterized previous months. The dollar volume of department store sales failed for second month in succession to increase as much as usual, and railroad freight loadings again decreased by more than seasonal amount. On the other hand the index of value of construction contracts, after seasonal adjustment, rose a few points: our index of manufacture probably was higher than in November and

total business volumes, as measured by check payments outside speculative centers, made almost full seasonal gain. The decline in wholesale prices did not cease, however, and contributed chiefly to the further appreciable drop of our business curve. Conflicting movements which have developed with improvement in some quarters are not proof that decline is at an end, yet they may possess certain significance at the present time when decrease in business volumes approaches in duration the maximum of the past half century. We expect that decline will cease in the present half year, probably in present quarter, and that moderate improvement in business will ensue,

UNITED STATES

(Harvard Economic Society).

FINANCIAL AND BUSINESS CONDITIONS. (Extracts from letter of Jan. 3rd, 1931.)

HE FINANCIAL SITUATION. Extremely easy money conditions marked the close of 1930. Speculative and business demands were slight, the volume of security flotations was small, and gold continued to flow in. The reduction of the New York rediscount rate on December 24, coming at a time when unusual demands were being made upon the reserve banks for currency, emphasized the strength of the reserve system and the very easy condition of the New York money market. This action, together with the subsequent reductions at other important reserve banks, reflects a liberal reserve policy, and gives additional assurance that 1931 will be a year of easy money.

Stock prices, which declined rapidly in the first half of December, rallied sharply on the seventeenth, and closed the month above the earlier minima. But they averaged lower than in November, so that the speculation curve (A) of the monthly index chart again declined.

THE TIMING OF RECOVERY AMONG VARIOUS ACTIVITIES.—At a time like the present there is naturally much interest in the question of what fields are likely to be the first to give definite signs of improvement. Some forty or more monthly measures of business or speculation suitable for comparison can be had for the years since 1919; roughly a third of them go back to 1903; while a few of the most significant carry back For ten past periods of 1875. subnormal business, therefore—the serious depressions following the crises of '73, '84, '93, '96, 1903, 1907, and 1920 and the lesser declines of 1900, 1911, and 1924—it is possible to see from the records where recovery has generally appeared early and where it has lagged.

Commonly after a period of business decline, one of the very first things to recover has been the price of high-grade

railroad bonds. Back through 1800 the period for which figures (based on average yields) are at hand—there have been no clear exceptions to this rule. though cyclical turning points from the minima of depression are difficult to pick in a few instances, notably in 1920-21. Next in order to bond prices, stock prices have been early on upturns; several times, indeed, as in 1893 and 1907, stock prices turned in the same month as bonds. Considered together, railroad and industrial stocks have generally ranked, among the series examined, in the second or third place on recoveries-if not in the first place with bonds. In 1921, however, the rise in stock prices, though it preceded the advance in total business volumes as represented by outside bank debits. followed after increases in certain business elements like building permits, quantity of merchandise imports, and manufacture. But despite this fact, the common belief that stock prices move early at times of business recovery is amply confirmed by the record.

Along with security markets, certain fields of business activity have in the past tended to be early in indicating business revival. Not only since the war, but also in pre-war years, building permits have been among the things that turned upward quite early; the more comprehensive figures for contracts awarded (available back to 1910) have on upturns coincided pretty closely with building permits. Merchandise imports, considering quantity as well as value, have also been comparatively quick, as a rule, on upturns. Perhaps manufacturing activity should likewise be added, though for pre-war years the only adequate monthly series available for manufacture—that for pig iron—is not uniform in respect to its timing. In 1921 manufacture recovered early, even slightly in advance of stock prices; and again in 1924 it seems to have turned up in advance of general

business volumes (as represented by our best present series, outside bank debits). An activity related to manufacture—the loadings of miscellaneous freight—may, on the brief evidence of post-war years, be put tentatively in the same class.

Wholesale commodity prices, as represented by the general index of the Bureau of Labor Statistics, have almost always been comparatively late in turning up after business depressions. Perhaps the best way to place them is to say that wholesale prices, as a rule, rise only after the volume of business has increased. For example, compared with outside bank clearings or debits, prices have regularly lagged on upturns except after some of the lesser declines, when prices turned before clearings (debits), and in 1922 when the two turned together. After no major depression have they turned before the volume of business increased.

Among the business series which are generally quite late in recovering may be mentioned railroad gross earnings, dividend payments, and—on the evidence of post-war data—the dollar volume of department-store trade. A considerable group of activities display no persistent tendency to lead or lag on business recoveries, but are in many instances highly irregular in that respect. Our export trade in pre-war years did not appear to reflect business conditions; the post-war record for value of total exports, and of finished manufactured exports, does not clearly determine their place in the recovery phase of the business cycle. Business failures and unfilled orders of the United States Steel Corporation are among the series which have been irregular in timing.

Certain fields of business or speculative activity, then, have in the past been characteristically either prompt or tardy in recording an upward movement of business. Even though the record contains many exceptions, a general tendency has appeared for security prices to move first and for particular business activities also—construction, import trade, manu-

facture-to give early evidence of an upturn. But it does not follow that recovery in the general volume of business, as represented by chequetransactions outside speculative centres, has regularly waited upon improvement in these special On the contrary, measured against an array of other business and speculative series, the volume of outside cheque payments has been quite irregular in the timing of its upturn. Sometimes, as in 1911 and in 1921, it has been among the last measures of business to show improvement. Occasionally, however, it has been among the first. In 1893, for example, outside clearings turned up just as quickly as security prices, and, in 1884, perhaps even in advance of them. At a time like the present, therefore, it is worth while to watch not only fields which have heretofore proven prompt on recoveries, but also the movement of general business volumes as recorded by cheque transactions.

The present showing of these various fields, though decidedly mixed, has some encouraging features. Prices of prime railroad bonds, though they have been subject to a violent reaction in the past two months, are still well above 1929 minima. The building returns for November were distinctly poor, yet the permits figures for several months have given indication of stabilization. The physical quantity of imports, seasonally corrected, turned upward in September and rose again in October; value figures, which had shared these increases, fell to a new minimum in November, however. Manufacture seems to have declined only seasonally last month, and we look for a definite upturn in this field by the end of the first quarter of 1931. Cheque payments have fallen extremely low. On the whole, these various indicators do not suggest an immediate recovery in general business, but certain very significant series support the opinion that business revival is fairly near at hand.

THE BOND MARKET.—A sharp rally at the middle of December checked the downward movement in bond prices

which had been under way for some weeks. The reasons for the decline in the face of very easy money conditions are not far to seek. Weakness in foreign bond prices, due to unfavourable political and economic developments abroad, naturally affected domestic bonds. Of greater importance was the effect of business depression on corporate income; for some of the rails, indeed, reduction of earnings has been sufficient to call in question their eligibility for savings banks in New York. From time to time, weakness in the stock market has led to liquidation in bonds.

Such influences are not peculiar to to this depression, but have been present to a greater or less degree in all, and past depressions have occasionally shown a secondary reaction in bond prices, such as the recent decline appears to have been. At present the sharp rally has brought the downward movement to at least a temporary halt, while the recent reductions of rediscount rates and the approach of the period of surplus funds after the turn of the year are favourable to improvement. For prime rails, therefore, the low point of 1929 seems to have been the turning point of a cyclical movement, and the recent slump a temporary—though severe—interruption of the upward swing.

Bond prices during the past three years have been higher than in 1919-21, reflecting the better money situation. The railroads (half of the Dow-Jones list of bonds) were under government control until March, 1920; they were favourably affected by the increase of rates in August of that year and by reductions in wages, authorised by the Railroad Labour Board, in the second half of 1921. Finally, with the improvement in railroad credit, the so-called "second-grade" rails have, between the two intervals, improved their position relative to the "highest grade."

Despite these differences, certain striking resemblances appear. In both periods, the rise from the low point and the subsequent slump were well marked for the rail bonds. In the earlier period, the net gain between the low point of 1920 and the end of the renewed decline in 1921 was greatest for "highest-grade" rails and less for "second-grade" rails. Similarly, during December 1930, the net gain of the "highest-grade" rails was greater than that of the "second-grade" The fluctuations of the publicutility bonds were somewhat similar to those of the rails. On the other hand, the industrial bonds during the two periods showed little if any recovery, their movement being irregularly downward.

RECENT MOVEMENTS OF SUBSIDIARY SERIES.

UNITED KINGDOM.

FINANCE.—The index-numbers of security prices have been reconstructed and rearranged. The new series are based on prices in 1924, which are equated to 100, so as to bring them in line with the other index-numbers in the Bulletin. The index of speculative securities is discontinued. There is little change in the indices of fixed interest securities, but only a choice of more suitable quotations.

For the index of industrial securities a new choice of companies has been made, based primarily on their importance in 1924 and subsequent years, but still limited to those that operate principally in the United Kingdom. The basis has been greatly widened, as the number of companies has been increased from 20 to 92. Banks and railways are excluded, but otherwise the percentages are weighted by the importance of industries as a whole

and of the companies within the industries. The whole detail of this and the other new numbers is given in Special Memorandum 33 now in the press, which will be soon issued.

For years prior to 1924 no adjustment has been made. In the Memorandum a continuous series is shown in which the new numbers are linked on to the old. The following table exhibits the modifications during the past six years made by the revision. The two series move in general agreement, but the old series gives an increase in the three years April, 1926, to April, 1929, of 37%, while the new shows only 27%; while from April, 1929, to December, 1930, the old series makes the fall $25\frac{1}{2}\%$ and the new 31%.

INDEX NUMBERS OF INDUSTRIAL SECURITIES, ORDINARY SHARES, NUMBERS IN 1924 EQUATED TO 163.

					. 0 10						
1925	Old.		New.	1926	Old.		New.	1927	Old.	N	ew.
Jan.	179	•••	179	Jan.	191	•••	196	Jan.	197	•••	199
Feb.	178	•••	178	Feb.	187	•••	191	Feb.	191	•••	197
Mar.	179		176	Mar.	182	•••	189	Mar.	192	•••	199
April	179		176	April	177		184	April		•••	199
May	178		174	May	182		189	May	200	• • •	205
June	180		174	June	186		192	June	203		204
July	172		171	July	181		189	July	201	•••	205
Aug.	178		179	Aug.	184		191	Aug.	201		207
Sept.	177		181	Sept.	187		194	Sept.	205	•••	210
Oct.	185		187	Oct.	190		192	Oct.	213		218
Nov.	192		192	Nov.	197			Nov.	211	•••	218
Dec.	187	,	187	Dec.	192	• • • •	194	Dec.	210	•••	217
1928	Old.			1929	Old.		New.	1930	Old.	1	Tew.
Jan.	216		227	Jan.	259			Jan.	212		199
Jan. Feb.	216 217		227 227	Jan. Feb.	259 262		241	Jan. Feb.	212 206	•••	192
							241				
Feb. Mar.	217		227 231	Feb.	262	•••	241 233	Feb. Mar.	206 200		192
Feb. Mar. April	217 225 239		227 231 235	Feb. Mar. April	262 247		241 233 233	Feb. Mar. April	206 200 211	• • • •	192 187
Feb. Mar. April May	217 225		227 231 235 244	Feb. Mar. April May	262 247 242		241 233 233 233	Feb. Mar.	206 200 211 208		192 187 194
Feb. Mar. April May June	217 225 239 246 240		227 231 235 244 235	Feb. Mar. April May June	262 247 242 240 240	•	241 233 233 233 228	Feb. Mar. April May June	206 200 211 208 198	····	192 187 194 192
Feb. Mar. April May June July	217 225 239 246 240 241		227 231 235 244 235 228	Feb. Mar. April May June July	262 247 242 240 240 232		241 233 233 233 228 228	Feb. Mar. April May June July	206 200 211 208 198 198		192 187 194 192 181 181
Feb. Mar. April May June July Aug.	217 225 239 246 240 241 243		227 231 235 244 235 228 230	Feb. Mar. April May June July Aug.	262 247 242 240 240 232 238		241 233 233 233 233 228 222 230	Feb. Mar. April May June July Aug.	206 200 211 208 198 198 187		192 187 194 192 181 181 171
Feb. Mar. April May June July Aug. Sept.	217 225 239 246 240 241 243 248		227 231 235 244 235 228 230 236	Feb. Mar. April May June July Aug. Sept.	262 247 242 240 240 232 238 238		241 233 233 233 228 228 230 231	Feb. Mar. April May June July Aug. Sept.	206 200 211 208 198 198 187 198		192 187 194 192 181 181 171 181
Feb. Mar. April May June July Aug. Sept. Oct.	217 225 239 246 240 241 243 248 249		227 231 235 244 235 228 230 236 240	Feb. Mar. April May June July Aug. Sept. Oct.	262 247 242 240 240 232 238 238 228	•••	241 233 233 233 228 222 230 231 218	Feb. Mar. April May June July Aug. Sept. Oct.	206 200 211 208 198 198 187 198 185		192 187 194 192 181 181 171 181
Feb. Mar. April May June July Aug. Sept. Oct. Nov.	217 225 239 246 240 241 243 248 249 245		227 231 235 244 235 228 230 236 240 235	Feb. Mar. April May June July Aug. Sept. Oct. Nov.	262 247 242 240 240 232 238 238 228 205		241 233 233 233 228 222 230 231 218 196	Feb. Mar. April May June July Aug. Sept. Oct. Nov.	206 200 211 208 198 198 187 198 185 191		192 187 194 192 181 181 171 181 171 173
Feb. Mar. April May June July Aug. Sept. Oct.	217 225 239 246 240 241 243 248 249		227 231 235 244 235 228 230 236 240 235	Feb. Mar. April May June July Aug. Sept. Oct.	262 247 242 240 240 232 238 238 228	•••	241 233 233 233 228 222 230 231 218 196	Feb. Mar. April May June July Aug. Sept. Oct. Nov.	206 200 211 208 198 198 187 198 185		192 187 194 192 181 171 181 171 173 161

A new measurement is introduced in the Table (p. 21) called the Sensitive Index number. This is intended to show the fluctuations in quotations month by month independently of the amount of capital in, or the importance of, the separate companies. It is therefore based on an unweighted geometric mean of the movements of the 92 quotations. It moves closely with the general weighted index, but when the stocks of the smaller companies are the more active the sensitive index will vibrate more, and vice versa.

FINANCE.—The prices of securities, after stationariness in the early part of

November, resumed their fall, and both the industrials and the (now discarded) speculative index-numbers fell 10% in two months to mid-January. The price of fixed interest securities, however, did not change. The short money index has tended downwards.

London Clearings increased, and were in December very nearly as high as a year ago. Country Clearings were at the same level as in November; Provincial Clearings showed a slight seasonal increase, but were 19% lower than in December, 1929.

New Capital Issues were fairly high for December, which is normally a low month.

The statistics of the Clearing Banks for December are not yet available. Details of the movement of gold will be found on p. 9.*

PRICESAND WAGES.—Wholesale prices continued in their downward course in December and the first half of January. The Board of Trade shows a fall in the three categories of food, in iron and steel, cotton, wool and miscellaneous materials, but not in coal, non-ferrous metals or other textiles. The general fall is 2% in the month. The Statist, however, gives a rise in meat prices to the end of the year.

From December, 1929, to December, 1930, the general fall has been 18%. Details are as follows:—

	Dec., 193	0 1	Fall %			
Cereals Meat and Fish Other Foods	82·4 102·8 73·1	•••	57·4 87·0 68·4		30 15 6	
Total Food	84.6		69.8		17½	
Iron and Steel Coal Other Metals & Miner Cotton Wool Other Textiles Miscellaneous	80·3 75·5 92·2 63·1 69·3 75·3 83·4		76·2 70·2 70·3 44·1 46·6 52·2 72·9		5 7 24 30 33 31 13	
Total, not Food	77.1	•••	63.3		18	
All Articles	79.7	•••	65.5	•••	18	

Retail food prices show rather more than the usual reduction during December. In the twelve months cereals have fallen 19%, meat and fish 8%, other foods

^{*} The aggregate efflux for 1931 to Jan. 21st, £5,413,144.

11%, all food 12%; but clothing has only fallen 5%, rent has risen 1%, fuel and light have not changed, and sundries have fallen 8%. In all, the cost of living index has fallen only 8% in the twelve months.

There is no important wage movement to record.

Trade and Output.—It was anticipated last month that imports for December would show some improvement on those for November, and in fact the total value is 12% higher, after allowance for seasonal change; there are increases in food, materials and manufactures. When, however, November and December together are compared with the same months in 1929 a decrease of 21% is found in the total, and a decrease of 40% in the materials group, which is evidently greater than the fall in prices. Details for the quarter as a whole are shown in Table A (p. 12).

Exports in December are normally rather lower than in November, but this year the fall is considerable in manufactures; in fact, the value of manufactures exported was 38% less than in December, 1929. The decrease is specially marked in iron and steel and manufactures thereof, also cotton and wool, but is considerable in every category. Between November and December, though the reduction in the aggregate of exported manufactures is 16% (or allowing for the season 13%), the changes are not uniform.

EXPORTS OF MANUFACTURES. (£Mn.)

	19	30
Iron and Steel and Manufactures Hardware, Electric Apparatus and	Nov. 3·5	Dec. 2.9
Machinery	4·9 2·5	4·7 1·9
Ships	3.1	1.2
Other Manufactures	10.6 8.1	9·5 7·1
Total	32.7	27:6

Detailed figures for the quarters as a whole are given in Table B (p. 13).

The output of coal (p. 25) diminished in December as is usual, while iron and steel continued their rapid fall. The tonnage of shipbuilding commenced was also very small in the fourth quarter of

1930. The quarterly index numbers of production (p. 18) show, however, that reduction had not taken place in all industries, and the rates of diminution were not at all uniform. Even the quarterly index may over-estimate the fall of output, for while it shows a loss of 19%, the statistics of insured persons employed indicate a fall of only 8%, which is slightly exaggerated by the operation of the last Insurance Act; on the other hand in times of depression, output per employee is no doubt reduced.

The estimated cost of all building plans approved in many districts in Great Britain (excluding London) was nearly the same in the fourth quarter of 1930 as a year earlier; a diminution by nearly one half in the case of factories being more than balanced by an increase in public buildings.

UNEMPLOYMENT.—The aggregate numbers of insured persons unemployed are:

	MALES Wholly Temporari Unemployed	000's FEMALES ily Wholly Temporarily Unemployed
1929 Nov. 25th. Dec. 16th. 1930 Nov. 24th. Dec. 22nd.	885 176 896 179 1415 356 1434 412	176 88 176 93 421 176 419 234
Increase in 12 m	nonths 771	384

In December, 1929, 353,000 males and 92,000 females had not satisfied the former statutory condition of having paid 30 contributions in the past two years, but are not in all cases debarred from benefit owing to the Acts of 1927 and 1929. The Act of 1930 brought into registration additional numbers, estimated at 185,000 males and 130,000 females at July, 1930. When allowance is made for these numbers the increase during the year is still very serious. Also the increase from November to December was considerable and abnormal, and extended over many industries.

Since Christmas there has been a further increase in the numbers on the Live Register, of an amount more than normal for the season, especially among males.

NUMBERS ON THE LIVE REGISTER 000.

	I	Male	5.		Females.				
	Wholly	Te	mporar	ily	Wholly	Te	mporai	ilv	
1929-30	Un	empl	oved.		Une				
Nov. 18th	770		172		173		82		
Dec. 16th	790	•••	177		170		90		
Jan. 13th	872		196		203		126		
1930-1									
Nov. 17th	1248	•••	370		398		166		
Dec. 15th	1306	•••	327		397		168		
Jan. 12th	1442		421		436		229		

As regards local distribution of unemployment, London and the South continue to be better than other districts.

PERCEN	TA	GES	OF I	NS	URED	PERS	ONS UN	IEME	LOYEI	D.
				1	ec. 1929). I	Vov. 1930)	Dec. 193	0.
London					5.9		10.0		9.8	
S.E.			٠.		6.9		10.3		11.1	
s.w.					9.2		13.3		13.2	
Midlands					9.1		16.4		18.6	
N.E.					14.1		24.0		24.5	
N.W.					14.4		27.6		29.3	
Scotland					12.9		22.7	•••	23.5	
Wales					20.7		28.6		31.2	
N. Irelan	d				15.2		28.1		33.4	
							-			
Δ 11					11.0		10.1		00.0	

FINANCE. INDUSTRY AND TRADE IN 1930.

KINGDOM. UNITED

N considering the total figures for 1930 it is necessary to look at the quarters of the year separately to obtain a judgment of tendencies, since deterioration has been continuous, and also whenever values are concerned we must have

regard to the fall of prices.

Finance.—The fall in the price of industrial securities began as early as March, 1929; the index fell slowly (4%) till September, and rapidly to December (a further 16%). In the first five months of 1930 there was little movement, but there was a further collapse in August and again in December, so that in twelve months the fall was 17% and in fifteen months amounted to 30%. Considerable and rapid though the fall has been, it has only brought the index back to the level of November, 1924.

The yield on fixed interest securities did not reach its maximum till September, 1929, and fell only slowly till February, 1930. From April to October there was little change, but there was a further fall in November. In the fifteen months from September, 1929, to December, 1930, the whole reduction was 11%; the index

numbers of yield and price were:

INDICES OF FIXED INTEREST SECURITIES. Sept., 1929 Dec., 1930 ... 107 ... 97 ... 93.5 ... 103 1924 Yield ... 100 100

The short money index rose in February, 1929, when the Bank Rate was raised from $4\frac{1}{2}$ to $5\frac{1}{2}\%$, and then tended downwards till August. It rose sharply at the end of September, 1929 (Bank Rate $6\frac{1}{2}$), and then fell till the end of the year as the Bank Rate was reduced successively to 6, $5\frac{1}{2}$ and 5. In the first statistics of the nine Clearing Banks.

half of 1930 the index fell rapidly—the Bank Rate being reduced to 4½ on February 6th, to 4 on March 6th, $3\frac{1}{2}$ on March 20th, and to 3 on May 1st, where it remains. The index has moved very little since May, 1930, in spite of the outward movement of gold at the end of the year.

Gold movements to and from the

Bank of England have been:

INWARD.	£M	ĺn.	OUTWARD.	
1928, April to August	16.5		1928, to Feb., 1929	
1929, March to May	11.4		June to Sept	33.7
Oct., 1929, to April, 1930	3 2 ·6		May to Oct., net	
			Nov. to Dec. 31st	12.0
	60.5			74-3

Thus in 23 years the net outward movement has been 14 Mn. In 1930 alone the net outward movement was

£393,351.

Town Bank Clearings, which were still high in the last quarter of 1929, have fallen throughout the year, so that the total last quarter was 10% lower than in the last quarter of 1929. Country Clearings fell at about the same rate in the first three quarters, but recovered a little in the last quarter, as is usual; Provincial Clearings followed a similar course, but in the last quarter were 20% lower than in 1929; the fall in commodity prices, however, accounts for part of the difference.

New Capital Issues for Great Britain have been low throughout the year, but revived a little in the autumn. Issues for overseas did not differ much between 1929 and 1930, and were greater in the autumn of 1930 than in the stagnation

of a year earlier.

The depression is emphasized by the

Their advances had increased nearly continuously for many years till April, 1929. In 1924 they averaged £791 Mn., in April, 1929, the amount was £987 Mn. From July to September, 1929, they fell from £985 Mn. to £971 Mn. and remained near the last named figure till April, 1930. Since then they have fallen month by month till they stood at £920 Mn. at the end of November. The ratio of advances to deposits was 56.6% in April, 1929, and 51.1% at the end of November, 1930.

Prices and Wages.—The fall in wholesale prices has been continuous from October, 1929, to the end of 1930 (with possibly a slight check at the end of 1929) for food and for materials, both by the Board of Trade and Statist reckoning. By the former it was 20%, by the Statist 22% (24% for materials and 18% for food). Though the fall is not so great as in the great collapse in 1920-1, it has been more rapid than in any pre-war experience in the past hundred years. Its injurious effects are the greater since industry had not recovered from the fall of about 16% between 1925 and 1927, and a slighter sagging down of prices from 1927 to 1929.

It is interesting to compare with the general index numbers the estimated changes of average prices of Imports and of Exports. From the third quarter of 1929 to the fourth quarter of 1930 the fall in general wholesale prices is 17%, of imports 18%, and of exports only 7%. The exports are dominated by manufac-

tured goods.

Retail food prices have followed wholesale prices in the usual way, that is two months or so later, and by a smaller percentage. Actually from January 1st, 1930, to January 1st, 1931, the fall is 12%, while the Board of Trade Food Index fell 16% from November to November. The Cost of Living Index, including almost stationary rent, and a smaller fall in clothing and fuel was only 8% lower on January 1st, 1930, than a year before.

During the year the only important changes in wage rates were a reduction in February in builders' wages, and in

some others that are related to the Cost of Living Index, and of those of woollen operatives in the summer. The general index of wages has fallen only 1%.

TRADE AND PRODUCTION.—The value of imports of each quarter of 1930 were less than a year before for food, etc., and materials, and except in the first quarter for manufactures. The most important question is how far this falling off is attributable to prices and how far to quantity.

The following table is deduced from figures given in the *Board of Trade Journal* for January 22nd, 1931.

•				•	•			_	-			
				IMP	ORTS			ED.		• .		
					Valu	e £1	In.					
O	uart	ers.	1929		1930		Perce	entag	e Rec	lucti	ons in	
-0		Food.		k and	Tobac	co.	Value		Price		Volum	ne
	1		125	•••	114		9		5		45	
	2		120		108		10		11		$+\hat{I}$	
	3		126		107		15		14		11	
	4		138		123		$11\frac{1}{2}$	•••	$16\frac{1}{2}$	•••	$+\tilde{c}$	
		Mate	rials.									
	1		78		67		14		9		6	
	2		68		52		24		184		7	
	23		62		47		25		17		114	
	4		78		47		39		26		161	
		Monu		noc (i	ncludi	ne no	ntlar n	aann	factur	(har	•	
	1	mano		169 (11	75	ng pa		ianu	5	eu).	1 10	
	Ţ	•••	70	•••		•••	+6	•••	2	• • • •	+12	
	2	•••	79	•••	72	•••	9	•••	1	•••	2 5	
	3		77		69		11		5			
	4		79	• • • •	68		14	• • • •	11	•••	3	

The column headed "volume" is obtained from a re-valuation of imports and of exports at stationary prices.

It appears from these rough estimates that food has been imported in its usual quantities, that materials have fallen off, especially in the latter part of the year, and that manufactures (including oils) have fallen least.

The quantities and values of some goods imported have been:—

Qrs. 3 4	Cotton,		Mn. lbs.	Quai 1929 198 520	1930 147 434		Value 1929 9:6 23:8	£Mn. 1930 5.0 12.1	
3 4	Wool,		Mn. lbs.	90 149	114 145		6·7 10·3	6·0 7·0	
3 4	Petroleu	m (refined)		456 377	536 412	•••	10·4 9·1	11·1 7·9	
	Rubber,		Mn. lbs.	112 120	89 102	•••	5·0 4·5	2·0 1·9	

For exports a similar table may be compiled, but owing to the difficulty of valuing manufactures at unchanged prices it is less accurate than in the case of imports.

EXPORTS OF BRITISH PRODUCE.

		Val	ue (£1	Mn.)		Percen	itage	reduc	tions	in
Qrs.		1929		1930		Value.		Price.		ume.
			Foo		nk and	Tobacc	30.			
1	•••	12.1	•••	12.3	•••	+13		6	•••	+8
3		13.2		10.6	•••	22	•••	6		16
3		14.0	•••	12.6	•••	11		14		+4
4		16.0	•••	12.7	•••	21		6	•••	16
				M	aterial	s.				
1	•••	19	•••	19		0		2		+2
2 3		21		16	•••	23		5		19
3		19		15	•••	25		3		24
4		20	•••	15		26		7	•••	21
				Mar	ufactu	res.				
1	•••	145		128		12		3		9
2		140	•••	110		21		3 3		18
3	•••	146	•••	105		28		5		25
4	•••	144	• • • •	96	•••	33	• • • •	7		28

In the small class of exported food, drink and tobacco there has been some increase. In the second class, materials, chiefly coal, the decrease has been progressive.

COAL EXPORTS (Mn. Tons). Ors. 1 2 3

	Qrs.	. 1	2		3	4
1929	 •	13.1	 15.0	•••	16.0	 16'2
1930			13.5			

In the principal class, manufactures, there has been a progressive decrease; after making a reasonable allowance for fall of price, the fall in a year to the last quarter is 25 to 30% in quantity. A comparison for certain goods in 1929 and 1930 follows:—

EXPORTED MANUFACTURES.

	Unit	1929		1930
Cotton Yarn	Mn. lbs.	167		137
,, piece goods	Mn. sq. yds.	3672		2407
Woollen Tissues	,,	108		79
Worsted ,,	,,	47		35
Art. Silk ,,	Mn. lbs.	14.1		10.8
Jute piece goods				
and carpets	Mn. sq. yds.	172		110
Cement	Mn. tons	1.09		1.04
Electrical goods	$\mathfrak{L}\mathrm{Mn}$.	13.2		11.9
Boots and Shoes	Th. Doz. Prs.	1006		907
Rubber tyres				
and tubes	£Mn.	4.22	•••	4.47

These figures are consistent with the data for production. The details for coal, iron and ships and the general index numbers show that production was main-

tained in the first quarter of 1930 up to the level of the previous year, and fell progressively in the last three quarters.

The table on p. 16 shows the *value* of the principal exported manufactures and their destinations in 1929 and 1930. In contrast to the general fall, the totals for locomotives and electrical machinery have been maintained. The effects of unfavourable conditions in European, South American and Eastern markets are evident.

It is interesting to notice that the tonnage of shipping entered with cargoes is little less in the second half of 1930 than a year earlier, while that of shipping cleared has fallen very considerably. The figures correspond with the small reduction in the quantity of imports and the great reduction in the quantity of exports.

The balance of trade has not changed greatly in the year.

EXCESS VALUE OF IMPORTS £MN.

					Good 1929	s only. 1930	Go	ods & k 1929	oullion 1930	, &c
$\frac{1}{2}$	Qr.	•••	•••	•••	95 90	95 92		92 93	106 94	
3rd	"	•	•••	•••	83	89	····	55	87	
4th	,,	:::	•••	•••	113	111	. •••	125	106	
					381	387		365	393	

As regards unemployment the following table shows that, apart from some seasonal variations, work has become scarcer over the whole range of industry throughout the year.* The increase due to the relaxation of conditions in the early part of the year under the last Insurance Act can only be a fraction of the whole, though it disturbs exact measurements.

UNEMPLOYMENT

					Males						FEMALES	
		ALL			Iron, Steel,				0.1		ALL	
	Temp- orary	Wholly	Total	Coal	Engineering Shipbuild- ing	Building and Con- struction	Cotton & Wool	Other Industries	Other Occupa- tions	Temp- orary	Wholly	Total
1929 February May August November	204 198 186 176	993 758 765 885	1197 956 951 1061	170 198 173 153	166 148 155 166	252 104 108 172	38 37 41 40	393 325 331 356	178 144 143 174	89 78 94 88	168 143 153 176	257 221 247 265
1930 February May August November	222 333 394 356	987 1024 1152 1415	1209 1357 1546 1771	142 235 252 225	182 221 275 342	195 147 166 232	63 85 105 96	425 461 532 610	202 208 216 266	150 183 225 176	224 316 348 421	374 499 573 598

^{*} The December figures are not given here since they are affected by the proximity of Christmas. They will be found on p. 27.

]	PIG-IR	ON.		***************************************		CRUD	E STEE	L.	EXPOI	
		Produc- tion	+ Im- ports	- Ex-	=Home Cons'mp- tion	% Imports to Home Consump- tion	Pro- duction	*Im- ports	Home Con- sumption	% Imports to Home Con- sumption	Semi- Finished	Finished
1913	Qrly. aver'ge	2565	46	236	2375	1.9	1916	215	2131	10	209	751
1923	Quart'r 1 2 3 4	1745 2059 1813 1821	41 28 21 11	228 211 137 149	1558 1876 1697 1683	2·6 1·5 1·2 ·6	2144 2338 1902 2105	138 141 140 133	2282 2479 2052 2238	6·0 5·7 6·8 5·9	} 512 } 567	1144 1161
1924	1 2 3 4	1918 1877 1774 1750	66 86 50 87	101 165 96 124	1883 1798 1728 1713	3·5 4·8 2·9 5 ·1	2279 2173 1862 1902	228 296 256 302	2507 2469 2118 2204	9·1 12·0 12·1 13·7	} 481 } 460	1212 1081
1925	1 2 3 4	1724 1655 1386 1471	83 61 60 60	124 109 87 147	1683 1606 1359 1384	4·9 3·8 4·4 4·3	1942 1835 1708 1913	286 290 276 306	2228 2125 1984 2219	12·8 13·6 13·9 13·8	181 179 188 204	589 572 576 6 6 2
1926	1 2 3 4	1604 670 44 124	70 53 109 245	136 74 53 13	1538 649 100 356	4·6 — —	2128 741 180 511	296 277 444 544	2424 1018 624 1055	12·2 	227 170 98 86	704 562 408 409
1927	1 2 3 4	1688 2051 1833 1731	204 180 108 74	40 70 74 92	1852 2161 1867 1713	8:3 5:8 4:3	2507 2482 2107 2003	562 391 356 373	3069 2873 2463 2376	13.6 14.4 15.7	213 298 252 241	564 735 768 782
1928	1 2 3 4	1704 1718 1561 1628	45 22 16 9	90 102 89 116	1659 1638 1488 1521	2·7 1·4 1·1 0·6	2184 2105 2034 2202	329 287 252 277	2513 2392 2286 2479	13·1 12·0 11·0 11·2	219 246 243 272	734 702 652 720
1929	1 2 3 4	1674 1924 2018 1963	24 20 29 44	117 130 106 103	1581 1814 1941 1904	1.5 0.9 1.5 2.4	2404 2483 2406 2366	200 268 252 270	2604 2751 2658 2636	7·6 9·7 9·5 10·2	265 237 250 258	737 692 653 716
1930	1 2 3 4	1923 1797 1328 1149	66 62 74 89	91 72 52 56	1898 1787 1337 1182	3·4 3·5 5·5 7·5	2374 1988 1653 1284	334 245 210 300	2708 2233 1863 1584	12·3 10·9 11·3 18·9	225 159 150 139	647 567 506 426

^{*} Blooms, Billets, Sheet and Tinplate Bars.

TABLE A. NET IMPORTS OF RAW MATERIALS (EXCLUDING RUBBER) AND CERTAIN PARTLY MANUFACTURED GOODS. DECLARED VALUES. 2 Mn.

	1924. Quarterly Average.	1927. Quarter,	1		928. rters 3	4	1		1929. arters. 8	4	1		980, rters. 3	4
Pig iron, etc Copper, tin, lead, zinc Yarns Leather	1·8 5·4 1·8 2·9	1.8 5.2 1.9 4.4	1.6 5.1 2.0 4.8	1·2 5·2 1·8 3·8	1·1 4·5 1·6 3·7	1:3 5:6 1:9 3:5	1·1 5·0 1·8 2·9	1·4 6·2 2·1 3·1	1·3 5·4 2·0 2·9	1.4 5.8 2.1 4.8	1.6 5.0 1.8 3.0	1.2 4.6 1.5 2.9	1.2 3.9 1.3 2.8	1·3 3·4 1·6 3·1
Minerals (non-metals) Iron Ore Other Metals Wood Oil Seeds, &c Hides Paper Materials Silk Other Textiles (except	1·3 2·1 3·7 12·6 12·1 2·0 2·9	1.5 1.4 4.2 13.6 9.7 2.6 3.4	1.2 1.3 4.1 6.0 10.6 3.9 2.0	1·3 1·3 4·1 8·2 11·3 1·6 2·6 ·3	1·3 1·1 3·7 15·0 10·8 3·9 2·5 ·4	1.3 1.1 4.4 12.6 9.4 1.4 3.0	1·2 1·4 3·9 5·9 11·7 1·2 2·5	1·3 1·5 5·1 7·8 10·7 ·9 3·4 ·4	1.5 1.8 3.7 17.4 9.7 2.9 3.4	1.4 1.8 3.9 13.9 9.8 2.5 3.7	1·3 1·7 3·7 6·9 9·1 2·7 2·9	1:4 1:6 3:6 9:0 9:2 :8 3:2	1.2 1.0 2.5 15.4 7:3 1.9 3.0	1·0 :9 2·3 11·0 6·8 ·9 3·0
Other Textiles (except Cotton and Wool) Cotton Wool	3·4 27·5 10·9	4·4 17·0 7·4	5·4 18·1 19·3	2·2 20·2 10·6	1:8 11:6 2:9	3·4 26·5 3·9	4·9 25·2 14·1	3·3 15·4 13·5	2·0 8·6 4·5	4·0 23·6 6·1	4·0 16·3 12·5	2·3 8·7 7·3	1·1 4·6 4·0	1:4 12:0 4:6
Total, both groups and miscellaneous	92-8	82:0	88:6	77:9	68-7	82-7	85-8	78·5	70:3	88:2	75.7	59-6	54.3	56.0
l'otal. excl. cotton and wool	54.4	57:6	51.2	47.1	54.2	52.3	46.5	49.6	57:2	58*5	46-9	43.6	45.7	39:4

	1924 Qrly. Av.	1927 Quarters 4	1	Quar Quar 2	28 rters. 3	4	1	19 Quar 2		4	1		930 arters. 3	4
Coke Earthenware Iron & Steel Other Metals Cutlery Electrical Goods Machinery Wood Cotton Wool Silk Other Textiles Apparel Chemicals Oils Leather Paper Vehicles Rubber	1.6 3.2 18.5 3.9 2.7 11.2 49.8 49.0 5.9 6.4 2.3 6.7 1.5	1.0 3.4 17.9 5.0 2.4 3.1 14.1 39.2 14.6 7.7 6.9 6.3 2.4 2.6 2.5 8†	9 3·0 16·6 4·4 2·1 3·0 13·7 39·2 15·6 6·7 6·3 2·3 2·5 2·3 8†	7 3·3 16·8 4·5 2·9 13·9 33·8 12·6 7·0 5·8 6·5 2·4 11·0 1·0 1·0	.9 3.4 15.7 3.8 2.2 2.8 12.7 .6 36.0 16.0 6.7.3 7.2 6.0 1.8 2.2 2.2 2.2 8.2 12.7		1·1 3·1 17·3 4·4 2·1 2·8 13·3 6·3 14·8 5·5 6·7 6·3 11·7 2·3 11·7 2·3 13·3 6·4 11·7 2·3 13·3 6·4 11·7 11·7 11·7 11·7 11·7 11·7 11·7 11	*8 5 16 *7 4 2 5 3 5 5 5 4 4 2 5 5 5 4 4 2 5 7 8 9 1 1 5 7 9 1 5 7 9 1 5 7 9 1 5 7 8 1 5 7 9 1 5 7 8 1 5 7 9 1 5 7 8 1 5 7 9 1 5 7 8 1 5 7 9 1 5 7 8 1 5 7 9 1 5 7 8 1 5 7 9 1 5 7 8 1 5 7 9 1 5 7 8 1 5 7 9 1 5 7 8 1 5 7 9 1 5 7 8 1 5 7 9 1 5 7 8 1 5 7 9 1 5 7 8 1 5 7 9 1 5 7 8 1	1:1 3:7 16:3 4:6 2:4 3:23 34:1 35:5 7:0 7:2 2:1 2:5 12:5 9;	1.2 3.7 17.6 4.6 2.5 3.8 14.9 30.9 11.6 6.6 6.7 7.7.7 2.2 2.1 2.8	1.0 3.3 15.4 3.7 2.0 3.3 13.0 6 30.3 12.4 5.9 5.8 6.2 2.1 1.5 2.3 11.0 8	61 3.13 3.00 1.99 2.90 12.05 21.66 7.24 4.93 5.66 1.95 2.11 1.55 2.12*	9 3·0 11·9 2·6 1·8 3·1 10·6 19·5 9·7 4·6 5·3 1·1 1·1 1·1 2·1 11·6*	1.0 2.6 10.8 2.7 1.7 2.7 11.0 5 16.2 7.8 3 4.1 4.4 5.0 1.6 1.1 1.9 12.9*
Total, including Miscellaneous	154.7	151.8	147:2	139.4	144.6	147.5	145·1	138.9	146.2	143.6	128-4	110.3	104-8	96.3

* Including rubber tyres.

t Excluding rubber tyres.

STOCKS OF STAPLE COMMODITIES

The following table is supplementary to the Summary table, p. 2, Special Memorandum 24, and except in the case of Tin, Lead, Copper, Rubber and Coffee, the figures are a continuation of the previous series. It should be remembered that

statistics of stocks are in most cases incomplete, but a certain degree of comparability should obtain in the figures which do exist. For the limitations of the statistics quoted below reference should be made to the Special Memorandum.

STOCKS OF STAPLE COMMODITIES.

	inning of Month.	(1) American Cotton.	(2) Copper. 1,000 tons.	(3) Tin. 1,000 tons.	1,000 U.S.		(5) Spelter 1,000 tons.	(6) Rubber. 1,000 tons.	(7) Sugar. 1,000 tons.	(S) Tea. Mn lbs.	Coff 1,000 Exc. Rio.	ee.	(10) Petrol- eum. Mn. barrels
1929	Jan		292		32.8	0.9	42	266	4,271	220	(a)	(b) 15,703	624
	July	3,096	315	28.7	52·6	0.8	34	299	4,779	185		14,259	631
	Oct Nov Dec	3,688 3,576	326 319 354	31·6 33·5 32·4	57·8 55·5 51·3	0·4 0·4 0·4	51 55 69	319 328 348	2,530 3,301 4,946	202 221 236	20,114 22,227 22,220	21,137 23,634 23,762	628 629 626
1930	Jan. Feb. Mar. April May June	3,485 3,744 3,870 4,104	401 435 457 479 525 528	35.9 38.2 41.0 41.1 43.5 45.9	50·8 42·2 37·1 41·1 37·5 44·3	2·0 4·5 6·7 6·8 7·6 7·4	73 85 87 90 92 100	383 401 422 426 431 418	5,473 5,533 6,148 6,982 7,298 6,955	260 * 267 210 235 215	23,451 24,487 25,012 25,770 27,667 27,316	25,063 26,222 26,768 27,470 29,310 29,814	630 633 639 639 636 637
	July	5,348 5,753 5,967 6,097	522 517 532 545 554 543	49·1 49·0 49·2 47·5 47·5	49.6 56.1 65.0 65.8 75.3 80.7	7.4 7.0 5.7 6.2 6.2 7.2	109 117 123 131 139 142	430 448 464 483 476 487†	6,156 5,021 4,233 3,165 4,413 6,125	209 201 214 222 235 243	26,803 25,920 26,722 27,505 27,209 28,360	28,424 27,529 29,203 * 29,366 30,447	632 628 626 613 611
1931	Jan		536	51·0		8.3	140			262			

† Provisional.

- (1) Total supply seasonally corrected, exclusive of European and Asiatic mill stocks.
- (2) Total supply outside hands of consumers less Japan Stocks.
 (3) London Metal Excharge Visible Supply plus "Tin" estimate of Straits Stocks.
- (4) U.S. and Mexico refined stocks to April, 1990. U.S. only since: U.K. stocks in official warehouses.
- (5) Visible supply in U.K. and U.S.

- Not available.
- (6) An estimate of World's stocks supplied by Rubber Growers'
 Association.
- (7) Total visible supply, exclusive of Interior Stocks in Cuba prior to Oct., 1926.
 (8) Bonded Warehouse Stocks to Jan., 1929. Tea Brokers' Assoc.
- (9) Visible supply in Brazil (Ports and Interior). Euro U.S.A. (2) exc. Rio Interior. (b) inc. Rio Interior, (10) Stocks of Crude and Refined Oils in U.S. Europe and

ANNUAL STATISTICS.

	1913	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
FINANCE— NEW CAPITAL ISSUES £Mn.	44	188	325	100	100	68	89	132	141	176	219	159	127
For Great Britain ,,	242	238	384	100 216	236	204	224	220	253	315	363	254	236
BANK CLEARINGS— London—Town £Mn. Metropolitan ,, Country ,, Provincial—5 Towns**,, 11 Towns ,,	14191 1856 1389 783	23215 1814 3387 1963	32853 2094 4072 2709	30268 1660 3002 1485	32781 1575 2806 1483 1797	32270 1547 2811 1489 1801	35039 1594 2900 1554 1881	35801 1678 2958 1556 1856	35346 1661 2818 1334 1628	36820 1758 2973 1408 1710	39311 1854 3039 1384 1673	39936 1882 3079 1321 1599	38783 1812 2964 1108 1348
DISCOUNT RATE— Average minimum charged by Bank of England %	4:77	5·15	6.71	6.09	3.69	3.49	4.00	4.55	5.00	4:65	4.5	5.5	3.42
NATIONAL FINANCE— Public Revenue £Mn. ,, Expenditure ,,	198 197	1340 1666	1426 1195	1125 1079	914 812	837 789	799 796	812 826	806 842	843 839	836 818	815* 830*	873* 871*
PRICES— AVERAGE FOR YEAR— WHOLESALE (Board of Trade)— General	100	de la companya de la	307	197	159	159	166	159	148	141	140	136	119.5
Materials	100 100 100	216	328 272 252	191 209 220	155 165 181	161 154 174	166 166 175	155 166 175	144 155 172	136 152 167	134 152 166	132 145 164	115·5 127 157
TRADE & OUTPUT— IMPORTS:—Food, Drink & Tobacco & Mn including Cotton ,, RE-EXPORTS Wool ,, All Raw Materials ,, Manufactures ,,	295 71 38 270 201	719 191 105 607 296	766 257 93 710 453	567 73 43 271 244	472 87 63 298 230	509 93 50 325 257	571 122 74 400 300	570 126 76 425 320	530 84 65 392 315	539 68 64 352 322	531 81 64 335 318	535 77 63 340 334	476 45 45 251 307
Total Imports ,,	769	1626	1933	1086	1003	1096	1277	1321	1241	1218	1196	1221	1045
EXPORTS:—Food, Drink and Tobacco of British Coal	34 51 66 55 34 126 36 414	34 83 111 64 31 239 96 641	51 100 146 129 63 401 135 1120	37 43 64 64 75 179 55 589	36 73 102 61 52 187 58 569	44 100 131 76 45 177 63 580	57 72 106 74 45 199 68 619	55 50 84 68 49 199 59 617	50 19 47 55 46 154 51 539	52 46 76 69 50 149 57 564	54 39 70 67 54 145 57 579	56 49 79 68 54 135 53 574	48 46 64 51 47 88 37 440
Total Exports ,,	525	799	1334	703	720	767	801	773	653	709	724	729	571
RE-EXPORTS—Food, Drink & Tobacco ,, Raw Materials ,, Manufactures ,,	16 64 30	83	46 123 54	30 50 27	22 55 27	25 67 27	30 76 34	32 90 31	26 74 25	27 71 25	28 66 26	26 54 29	24 38 24
Total Re-Exports "	110	165	223	107	104	119	140	154	125	123	120	110	87
Excess of Imports—Goods & Bullion ,,	146	663:	419	264	166	195	324	384	475	390	358†	† 366	392
OUTFUT—Coal Mn. Tons Pig-iron 000 Tons Steel ShipBuilding:—Commenced Launched ,, ,,	. 10260 7664	7398 7894 2403	229·5 8035 9067 2397 2056	3703 569	249.6 4902 5881 404 1031	276·0 7440 8482 953 646	267·1 7307 8201 1050 1440	6262 7385 814	126·3 2458 3596 582 638	251·2 7293 9097 1764 1250	237·8 6611 8525 1297 1443	7589 9636 1649	243§ 6197 7299 950 1486
TRANSPORT— SHIPPING (with Cargoes):— Tonnage entered Mn. Tons cleared " RAILWAYS (Gt. Britain):—	. 49·1 67·8			37·1 36·4	43·4 59·7	51·1 70·7	55·4 65·3	55·5 62·3	64·2 47·0	60·6 63·5			
Tonnage carried— General Merchandise Mn. Tons Fuel ,, ,, ,, Other Minerals ,, ,, ,, Goods Receipts & Mn Passenger Train Receipts ,,	225.6	180·2 57·0 72·3	69·1 127·3	128·3 39·7 109·8	56·7 200·1 49·4 115·8 101·8	222·3 63·0 110·1	209·2 66·3 106·7	193·7 63·3 104·0	57·7 115·2 48·7 85·3 85·1	66.5	187.3 62.2 103.6	207·2 65·7 107·0	
UNEMPLOYMENT—all insured persons %		1		17.00	14.3	11.7	10.3	11.3	10.5	0.7	10.0	70.4	16-1
sons %	41.3		42:1										

[†] Excluding Bullion. *Budget estimates on old accounting basis. † July, 1914. § Provisional. °Excluding coal-miners disqualified for benefit.

^{**} Birmingham, Bristol, Liverpool, Manchester, Newcastle. †† Excluding special transfer of £19 Mn. of Bullion to France. || Civil population only.

SUMMARY OF QUARTERLY STATISTICS.

		1!	928			19	29	angkan kadinda yayan Gada		19	30	
TOTALS,*	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	lst Qr.	2nd Qr.	3rd Qr.	4th Qr.	lst Qr.	2nd Qr.	3rd Qr.	4th Qr.
BANK CLEARINGS: Town (ex Metropolitan) Country Provincial (11 Towns)	£ Mn. 9857 770 448	£ Mn. 10080 757 414	£ Mn. 9371 736 391	£ Mn. 10003 776 420	£ Mn. 10316 764 427	£ Mn. 9514 769 387	£ Mn. 9941 757 386	£ Mn. 10165 790 399	£ Mn. 10292 771 385	£ Mn. 9782 742 333	£ Mn. 9529 720 311	£ Mn. 9180 730 319
BANKERS' ADVANCES: Average for Quarter NEW CAPITAL ISSUES in Gt. Britain:	923	934	932	942	968	980	979	971	973	962	938	
All For United Kingdom IMPORTS RETAINED:	103·4 55·5	99·3	66·6 37·2	93·3 64·7	114·2 69·0	81·3 55·1	28·4 17·5	29·7 17·8	69·5 36·3	72·4 37·4	28·0 19·0	66·3 34·7
Food, Drink and Tobacco Materials:	125	122	122	135	125	120	126	139	114	108	107	123
Partly Manufactured Cotton Other Total Wholly Manufactured Goods Total Retained Imports	13 18 58 89 60 277	12 20 44 76 60 261	11 12 46 69 61 257	26 45 83 61 282	11 25 53 89 60 276	13 15 53 80 66 268	12 9 53 74 65 268	24 54 92 65 299	11 16 51 78 64 259	10 9 43 62 65 233	9 5 42 56 60 225	9 12 35 57 58 240
EXPORTS, BRITISH: Materials Manufactures—Cotton Other Total British Exports	18 39 108 182	18 34 106 173	16 36 109 180	19 36 111 188	19 38 107 181	21 33 107 178	19 34 112 185	20 31 113 186	19 30 98 164	16 22 88 141	15 19 86 136	15 16 80 129
EXCESS OF IMPORTS: Goods and Bullion	80	100	80	82	92	93	55	125	106	94	87	106
TONNAGE OF SHIPS (with cargoes): Entered from abroad Cleared for abroad	1349 1511	0000 1541 1606	Tons 1595 1692	1549 1636	1316 1553	0000 1589 1728	Tons 1775 1863	1590 1723	1392 1610	0000 1659 1656	Tons 1756 1738	1565 1581
PRODUCTION:		0000	Tons			0000	Tons			0000	Tons	
PRODUCTION: Coal (13 weeks) Pig-iron (3 months) Steel ,, ,,	6536 170 218	5792 172 211	5638 156 203 Tons	6154 163 220	6813 167 240	6265 192 248	6284 202 241 Fons	6701 196 237	7014 192 237	5911 180 199 000	5634 133 165 Tons	6164 115 129
Shipbuilding (commenced)	342	279	245	432	362	428	360	499	427	230	161	132
INDEX OF PRODUCTION: Bulletin % of 1924 Board of Trade ,,	105·7 109·3	103·7 103·6	95·4 100·2	105·2 108·4	108·3 110·5	111·0 112·0	108·2 110·7	114·8 113·9	109·6 110·9	100-9 103-1	90·7 99·5	93.2

^{*} Except Bankers' Advances for which mean weekly averages are given.

<u> </u>			19	928			19	29			19	30	
INDEX NUMBERS. Percentage of 1924 level.	Date in Quarter	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	lst Qr.	2nd Qr.	3rd Qr.	4th Qr.	lst Qr.	2nd Qr.	3rd Qr.	4th Qr.
PRICES OF COMMODITIES— General—Board of Trade Statist	Last month Last day	84·6 89	85·8 88	82·8 84	83·1 85	84·4 87	81·6 81	81·7 81	79·7 78·5	74·9 74	72·6 69	69· 5 65	65·5 62·5
Materials—Board of Trade Statist	Last month Last day	81·1 86	81·3 86	79 ⁻ 8 84	80·0 84	81·2 87	79·1 80·5	79·5 79·5	77·1 76	73·4 72	70·4 66·5	67·0 62·5	63·3 59
Food—Board of Trade Statist	Last month Last day	91·4 93	94·7 92	88·7 84	89·1 85	90·3 86	86·2 83·5	85·8 83	84·6 81	77·7 76	76·6 72·5	74·4 70	69·8 67·5
Retail—Food	Last day	91 94	92 94	92 95	93 95	88 92·5	87·5 92	91·5 94·5	92 95	84 90	83 88·5	84 89	81 87·5
Wage Rates	Fortnight after end	100	100	99-5	99.5	99.5	9 9·5	99	99	98.5	984	98₺	98≱
PRICES OF SECURITIES— Industrials* Fixed interest*	,, ,, ,,	144 100:9	140 99-4	147 98:2	148 101·1	143 97 '9	136 96·0	134 93·9	122 95·5	119 100·3	111 99·7	101·3	97 103-5
SHORT MONEY	,,	124	1.20	129	125	158	160	189	136	82	69	65	68

EXPORTS OF MANUFACTURES.

Value of chief articles exported in the Years of 1929 and 1930 to the principal countries concerned.

the grant amount of the constitution of the grant of the constitution of the constitut	YEAR 1929 1930	rauftanne kandustaun yn as affaith yn yschiffer y fryn y feithiol ar feithiol yn yn yn yr heffen ar affaith y	YEAR 1929 1930		YEAR 1929 1930
	£000		£000		£000
POTTERY, Etc. U.S.A Brazil Argentine British S. Africa British India Australia New Zealand	833 648 274 154 434 370 264 218 274 197 798 501	RAIL LOCOMOTIVES (Steam and other) Argentine	494 740 294 188 346 336 1496 1547 645 940	Straits Settlements & Malay States Australia	26919 14256 991 746 2588 835 6982 4622
New Zealand Canada Other Countries	369 315 949 817 2098 1911		3275 3751	Other Countries	1489 1093 11284 7026
	6293 5131	MACHINERY (Electrical). Europe S. America	1269 1429 497 734	WOOL TOPS & WORSTED	953 952
PIG IRON & FERRO ALLOYS Belgium France Italy U.S.A Other Countries		S. Africa British India	511 501 1387 1067 932 732 1751 1872 6347 6335	YARN. Sweden	667 588 3564 2055 223 110 1361 1219 4860 3336
	2882 1815	not electrical).		To S. Ireland†	10675 7308 280 235
PLATES & SHEETS (not coated). Japan British India Australia & New Zealand Other Countries	972 472 514 323 937 544	S. America British S. Africa British India and Ceylon Straits Settlements Australia	85 107 103 76 1023 597 427 344 205 214 1151 866 166 101 332 273 1697 1262	WOOL & WORSTEI) TISSUES Germany Netherlands Belgium France Italy Other European Countries China Japan U.S.A.	2333 2016 774 710 891 717 1099 1077 961 766 2171 1811 1919 1037 1269 759 3173 1541
GALVANISED SHEETS. Dutch E. Indies Argentine, Uruguay British W. Africa British S. Africa British India Australia New Zealand Other Gountries	229 183 453 418 893 449 3453 1428 1507 525 605 370	TEXTILE MACHINERY. Russia Germany Netherlands France Rest of Europe	699 760 630 382 508 382 508 775 2251 1451 736 707	Chile and Peru Brazil, Uruguay, Argentine British S. Africa Australia New Zealand Canada Other Countries	731 581
To S. Ireland	10898 5919	- Japan	1041 435 508 306 513 242	To S. Ireland LINEN PIECE GOODS. U.S.A	747 629 1752 1259 288 204 450 293
SHEETS (Tinned, etc.) Norway Germany	377 346		11644 8628	Australia and New Zealand Canada Other Countries	631 455 247 230 1618 1542
Netherlands France Spain Italy Dutch E. Indies China (with Hong Kong) Japan Brazil Argentine	542 397 550 551 648 294 486 530 573 544 608 339 438 339 531 507	Norway, Sweden, Denmark Germany and Poland Netherlands Belgium France Switzerland Bulgaria Roumanja	2174 1665 826 674 760 575 1383 853 154 110 446 465	APPAREL. British S. Africa	4986 3983 2554 1877 353 174 867 805 413 312 3518 3010
British India Straits Setts, and Malay Australia Canada Other Countries	528 515 1163 1051 565 613	Brazil Argentine	637 370 414 286 215 141 2300 1076 542 372 275 224 2881 1963	To S. Ireland BOOTS AND SHOES. British S. Africa New Zealand Other Countries	7705 6178 1353 1341 712 542 639 514 1968 1486
COPPER MANUFACTURES		Other Countries	20753 14455	To S. Ingland	3319 2542 1487 1507
Egypt	95 88 501 339 207 113 205 226	Norway, Sweden, Denmark Germany Netherlands Switzerland Turkey	1531 1196 1657 1033 1985 1264 1085 550	LEATHER. Germany	539 319 494 349 2356 1259 2429 1679
TIN (Blocks, etc.) Sweden	007 505	Dutch E. Indies China (with Hong Kong)	6174 1867	To S. Ireland	5818 3606 378 400
Germany France U.S.A Canada Other Countries	492 116 722 504 2798 1479 165 49 1856 1084	Peru & Chile Brazil Argentine, Uruguay Colombia Egypt British S. W. & E. Africa	1892 1173 1564 347 5534 4365 1257 583 3435 2417	PAPER. Foreign Countries British India Australia and New Zealand Other British Possessions	671 585 294 236 2238 1803 626 535
and the same of th	6326 3427	Foreign W. & E. Africa	2141 1567		3829 3159

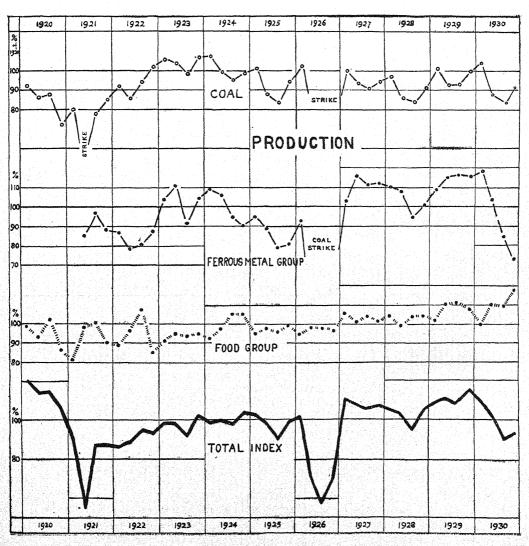
THE PHYSICAL VOLUME OF PRODUCTION.

for the last quarter of 1930 is 93.5, which compares very unfavourably with 114.8, the corresponding figure of 1929. The general trend downwards in the Production figures noted in the last two quarters appears to have continued in the fourth quarter.

The most noticeable feature of the figures for the individual industries is the Index, 72.9, for the Iron and Steel Group. This figure is the lowest recorded in the

last seven years, excepting 1926, the year of the Coal stoppage, and would have been still lower had it not been for the uplifting effect of the figure for export of Locomotives, etc. The Pig-iron, Steel and Shipbuilding figures should be noted. Elsewhere should be noted the low figure for Coal, compared with the fourth quarter in 1929, the Non-Ferrous Metal figure is maintained at a high level. The Textile Group figure is again low; the Food figure is maintained at a high level.

QUARTERLY INDEX OF PRODUCTION.



QUARTERLY INDEX NUMBERS OF PRODUCTION. Average 1924=100.

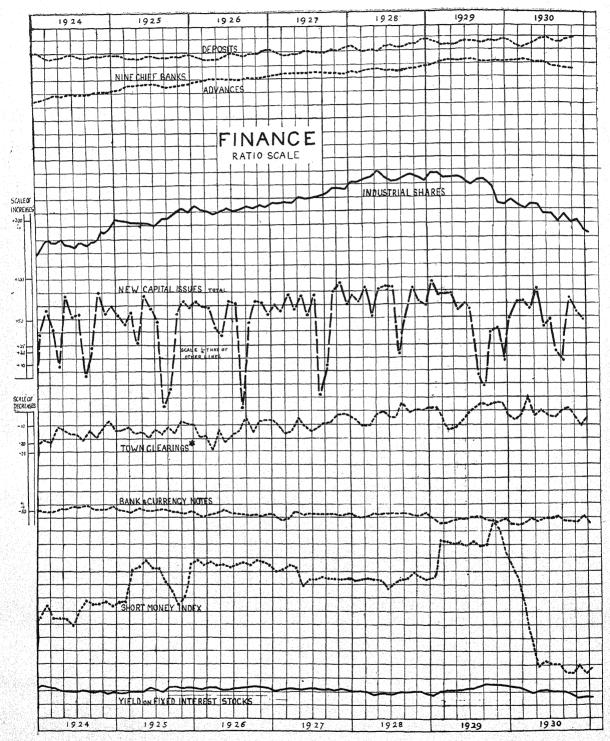
VII.	F	Paper. Index.	000 tons 244·3	98 1183	55.7 98.8 104.9 99.9 127.2 97.9 114.2 103.8	77·3 102·6 99·4 98·2 108·6 90·1 111·2 99·1	91.7 102.2 114.4 72.0 114.8 57.3 103.5 69.7	109.0 1108.1 112.1 108.1 126.4 105.9 124.2 107.4	82.4 105.7 118.0 103.7 99.8 95.4 122.9 105.2	111.2 108.3 136.6 111.0 139.7 108.9 147.0 114.8	116.3 109.6 127.0 100.9 125.4 90.7 122.5 93.6	
Δ	Group Index		288	29	95.4 5. 103.0 10. 101.0 12. 101.2 11.	107.6 7 94.4 9 82.4 108 87.4 11	90.0 79.5 72.6 11 84.4	107.0 92.6 11 92.8 12 97.9	104·8 8 103·8 11 93·3 9 102·7 12	100.1 102.1 105.4 105.4 14	94.5 12 88.8 12 97.7 12 98.5* 12	
VI.		Seed (1 crush- h Cl ing.	000 tons 435·3	1	97.8 87.8 104.5	118·2 91·1 93·0 84·6	92.8 84.6 80.4 59.7	82.8 77.5 66.8 70.6	98.8 99.8 79.5 72.7	109.2 86.0 69.7 1	79-7 69-2 59-1 75-7	
	1	Group Index.		209	92.5 97.8 104.9 104.8	94.8 97.8 96.0 99.4	95.3 98.6 97.8 96.8	105.7 101.4 104.2 101.6	104.4 99.3 103.5 104.2	101.9 110.6 111.3 107.9	99.8 110.3 109.3 117.1	Under Construction.
V.		Tobacco	000 lbs. 36,477	* 78	95.6 99.7 101.9 102.7	96.5 105.2 110.2 108.5	102·5 112·7 104·8 112·8	107.2 110.0 118.7 121.9	116.9 124.3 127.7 133.6	123·3 139·1 141·1 142·1	138·3 136·7 138·0 145·4	Inder Cor
		Cocoa.	ewts. 259,231	LJ.	109·6 89·6 88·7 112·1	109.9 113.3 99.2 112.1	119·3 114·4 87·6 113·9	144·3 82·4 102·8 101·3	121.4 103.7 102.5 101.0	115.3 116.7 103.4 108.3	99.9 121.7 96.5 121.6	1+
		Wheat and Flour.	000 cwts. 31,914	90	85.4 99.6 111.6 103.3	89.2 89.3 91.1	82.5 87.0 84.0	92.4 103.6 98.0 92.3	93.2 86.4 92.7 91.8	87.0 94.9 100.1 91.4	81.3 91.8 99.8 101.9	
		Group Index.		216	101.0 90.8 83.2 125.3	134.2 124.0 99.5 129.0	130.4 102.1 82.2 107.0	139.0 118.2 108.2 113.5	118.4 112.0 98.1 119.7	120.8 114.7 94.1 124.5	112.9 90.6 68.4 87.7*	r. 1925.
Δ1	•	Silk.†		70	74.6 94.3 111.5 119.5	112.2 152.0 81.9 79.3	92.7 96.5 86.3 105.0	108:2 101:8 96:9 147:6	151·1 136·6 140·8 158·0	147.3 142.2 162.8 175.0	125.0 127.2 140.5*	om 3rd Q
-		Cotton.	bales 689	8%	104·2 90·4 79·7 126·0	136°9 120°6 101°6 135°1	135·0 102·8 81·7 107·2	142.8 120.2 109.6 109.3	114.4 109.0 92.9 115.0	117.6 111.4 85.8 118.6	107·3 86·4 61·3 81·3	† Includes artificial silk from 3rd Qr. 1925.
		Group Index.		25	96.6 90.4 111.6 101.2	100.0 102.6 111.2 110.3	117.6 103.8 114.4 119.2	125·9 123·5 118·7 119·8	117·5 122·9 106·9 112·1	111:5 120:5 117:7 114:7	111 8 117 2 114 3 119 4	es artifici
		Tin Tin and Zinc.	tons 87,967	69	96.4 87.3 118.5 97.7	102·3 108·9 117·0 124·9	123·8 111·1 110·4 121·5	151.6 115.8 124.4 114.2	109·9 120·0 94·3 106·5	106·1 120·3 120·4 109·7	119·7 113·7 100·4 123·9	† Includ
		Copper.	tons 39,626	99	96·9 93·8 104·1 105·0	97.4 95.7 104.8 94.3	110°9 95°8 118°8 116°7	119·7 132·0 112·4 125·9	125.8 126.1 120.6 118.2	117.4 120.8 114.7 120.1	103·1 121·1 129·4 114·5	
		Group Index.		341	109.0 106.2 94.6 90.6	95·1 89·2 79·4 81·1	92.8 49.4 25:1 32.7	103.4 116.0 111.3 112.0	110·1 107·7 94·9 100·8	109.1 114.8 116.4 115.9	118·1 104·1 85·2 72·9	ted.
		Railway Ve h icles	tons 9,929	9	142.7 112.9 78.3 66.1	167'9 150'0 111'9 98'5	188.6 149.1 94.0 82.6	67.0 155.7 196.3 244.6	199°3 265°1 154°2 126°2	139.9 131.6 152.8 149.9	149.0 180.8 151.2 189.8	* Partly Estimated.
	•	Ship- Railway building Vehicles	000 tons 1,373	88.	100.0 106.7 103.1 90.1	79:5 74:1 67:6 57:4	55.6 55.6 48.6 48.1	87.2 100.6 111.8 114.7	104·9 87·6 90·5	98.8 105.9 105.4 113.6	117.6 101.4 81.4 66.2	* Part
		Steel.	000 tons 2,050	36	111.2 106.0 90.8 92.8	94·7 89·5 83·3	103:8 36:1 8:8 24:9	122:3 121:1 102:8 97:7	106·5 102·7 99·2 107·4	117.0 121.1 120.0 115.4	118.4 97.0 82.5 64.0	
		Pig Iron.	000 tons 1,827	77	105·0 102·8 97·1 95·3	94.4 20.6 75.9 80.5	87.8 36.7 2.4 6.8	91.8 112.3 100.3 94.8	93.3 94.0 85.4	91.6 105.3 110.5 107.5	105:1 98:4 72:7 62:9	
	:	Coal- mining.	000 tons 67,308	232	107·3 99·3 95·0 98·4	100.8 87.8 83.6 94.4	102.5 29.8 10.4 41.6	100.0 93.5 90.8 94.1	97·1 8 6 ·1 83·8 91·4	101.2 93:1 93:3 99:5	104:2 87:8 83:7 91:6	
1	Group:	Industry:	Average quarterly production, 1924.	Weights.	4.: Qrs. 1.2. 22. 4.3.		8 4884				-10254	
L	<u>ه</u>	Ind	Prod A.	Ě	Year. 1924	1925	9361	1927	1928	1929	1930	1

FOREIGN EXCHANGES.

					AV	ERAGE (F DAIL	Y RATES	· 1				
	Paris f. to £	Milan l. to £	Berlin M. to £	Amsterdam fl. to £	Prague kr. to £	Berne f. to £	Stock- holm kr. to £	NewYork \$ to £	Buenos Aires d. to \$	Rio de Janeiro d. per mil,	Bombay d.perrup.	Hong- kong d. per \$	Kobe d.peryen
Parity	124-21†	92·46§	20.43	12.107	24.02	25.2215	18.159	4.866	47:58	27	18	-	24.58
1926	100.7	1007	20.40		9 to 1925			ER BULLE		' 	,		ı
JAN FEB MAR APRIL MAY JUNE	132·4 135·8 143·4 154·3	120·3 120·8 120·0 120·9 126·2 132·4	20·40 20·43 20·41 20·42 20·42 20·44	12·09 12·14 12·13 12·12 12·09 12·11	163·9 164·2 164·0 164·1 164·1 164·2	25·05 25·25 25·25 25·19 25·12 25·13	18·13 18·16 18·12 18·15 18·16 18·15	4·858 4·864 4·861 4·862 4·862 4·866	46.54 46.03 44.64 44.84 45.10 45.27	7·36 7·32 7·16 6·94 7·31 7·78	18:20 18:19 18:08 17:88 17:93 17:91	28·75 28·63 27·85 26·94 27·35 27·42	21.80 22.42 22.41 23.04 23.20 23.14
JULY AUG SEPT OCT NOV DEC	197·7 171·4 169·9 165·2	145.0 147.5 132.5 118.3 115.1 109.4	20·43 20·40 20·38 20·379 20·415 20·387	12·10 12·11 12·112 12·124 12·125 12·130	164·2 164·0 163·8 163·7 163·7 163·8	25·12 25·14 25·120 25·120 25·141 25·106	18·15 18·15 18·15 18·147 18·170 18·155	4·864 4·858 4·855 4·850 4·849 4·851	45·48 45·42 45·62 45·90 45·74 46·16	7.68 7.59 7.51 6.92 6.40 5.87	17·93 17·96 17·93 17·89 17·84 17·85	27·06 26·45 26·05 23·83 23·56 23·46	23·30 23·63 23·93 24·04 24·30 24·23
1927 JAN FEB MAR APRIL MAY JUNE	124·01 123·98	111.6 112.3 107.7 97.05 89.96 86.94	20·454 20·466 20·468 20·490 20·501 20·494	12·135 12·123 12·130 12·140 12·136 12·124	163·8 163·7 163·9 164·0 163·9 163·9	25·176 25·220 25·235 25·251 25·253 25·244	18·171 18·174 18·144 18·135 18·157 18·128	4·853 4·850 4·854 4·857 4·857 4·856	46.40 46.93 47.51 47.55 47.56 47.69	5·80 5·87 5·87 5·83 5·80 5·84	18·03 17·97 17·96 17·88 17·93 17·91	24·17 24·79 24·01 24·50 24·32 24·21	24·15 24·20 24·31 23·90 23·26 23·09
JULY AUG SEPT OCT NOV DEC	124·00 124·03 124·00	89·04 89·32 89·35 89·12 89·47 90·69	20·450 20·431 20·433 20·408 20·422 20·435	12·119 12·129 12·135 12·116 12·075 12·073	163.9 164.0 164.0 164.3 164.4 164.7	25·220 25·212 25·222 25·249 25·272 25·277	18·128 18·116 18·094 18·084 18·098 18·080	4·8552 4·8606 4·8634 4·8700 4·8740 4·8825	47·76 47·85 47·95 47·90 47·83 47·82	5·83 5·87 5·87 5·91 5·89 5·91	17·87 17·87 17·97 17·97 17·99 18·10	24·15 23·68 23·83 23·95 24·43 24·63	23·31 23·37 23·14 22·96 22·65 22·71
1928 JAN FEB MAR APRIL MAY JUNE	124·02 124·02 124·01 124·01	92·17 92·07 92·37 92·55 92·65 92·76	20·461 20·431 20·412 20·412 20·399 20·417	12:086 12:109 12:124 12:110 12:098 12:098	164·5 164·5 164·64 164·71 164·72 164·67	25·302 25·336 25·339 25·332 25·327 25·317	18:138 18:161 18:180 18:183 18:193 18:186	4·8750 4·8801 4·8821 4·8817	47·83 47·88 47·86 47·81 47·80 47·66	5·92 5·92 5·93 5·92 5·92 5·89	18·10 18·00 18·00 18·01 17·95	24·69 24·44 24·40 24·42 25·05 24·66	23·09 23·08 23·20 23·47 22·94 22·95
JULY AUG SEPT OCT NOV DEC	124·18 124·23 124·18 124·14 124·11	92·81 92·74 92·61 92·57 92·66	20·384 20·364 20·356 20·363 20·354 20·360	12·084 12·101 12·097 12·096 12·082 12·078	164·13 163·76 163·65 163·63 163·64 163·72	25·255 25·211 25·200 25·200 25·190 25·178	18·130 18·138 18·143	4·8538 4·8508 4·8498 4·8495	47·43 47·41 47·34 47·34 47·47 47·36	5·90 5·91 5·91 5·92 5·91 5·89	17.91 17.95 18.06 18.06 18.07 18.062	24·54 24·50 24·36 24·55 24·59 24·51	22:65 22:29 22:69 22:88 22:96 22:75
JAN FEB MAR APRIL MAY JUNE	124·23 124·24 124·21 124·14	92.67 92.70 92.68 92.70 92.65 92.65	20·402 20·447 20·455 20·475 20·415 20·335	12:091 12:115 12:117 12:090 12:067 12:074		25·207 25·231 25·229 25·214 25·190 25·198	18·155 18·170 18·173 18·154	4·8525 4·8529 4·8534 4·8510	47·28 47·28 47·24	5·91 5·90 5·86 5·87 5·87 5·87	18·056 18·013 18·008 17·965 17·912 17·854	24·08 24·08 23·92 23·68	22·56 22·38 22·05 22·08 22·11 21·77
JULY AUG. SEPT OCT NOV DEC	123·88 123·90 123·87 123·89 123·85	92·74 92·74 92·69 93·00 93·16 93·24	20·359 20·360 20·361 20·397 20·389 20·386	12.086 12.103 12.093 12.098 12.087 12.096	163·83 163·76 164·41 164·57	25·164 25·176 25·151	18·101 18·101 18·141 18·149	4·8488 L 4·8479 L 4·8695 9 4·8777	47·21 47·20 46·82 46·26	5·87 5·88 5.87 5·86 5·80 5·56	17.818 17.830 17.869 17.871 17.886	23·87 23·73 21·73 21·18	22:54 23:13 23:42 23:58 24:01 24:10
1930 JAN FEB MAR APRIL MAY JUNE	123·91 124·16 124·26 124·10 123·90 123·81	93·05 92·87 92·84 92·78 92·71 92·76	20·387 20·366 20·382 20·375 20·365 20·372	12·102 12·125 12·125 12·097 12·081 12·086	164·26 164·11 164·16 163·97	25·198 25·136 25·094 25·108	3 18·12 5 18·10 18·09 3 18·11	4 4·8621 6 4·8632 2 4·8634 1 4·8599	42·70 42·24 43·61 43·02	5.86	17:907 17:862 17:860 17:838	18.66 18.24 18.40 17.67	24·38 24·38 24·39
JULY AUG SEPT OCT NOV	123·66 123·82 123·77 123·85 123·65	92·88 92·98 92·83 92·80	20·383 20·387 20·404 20·412 20·379	12.092 12.085 12.065 12.068	9 164·17 7 163·82 3 163·79	25·04' 25·04' 25·02'	7 18·11 9 18·09 0 18·09	2 4.8708 3 4.8614 6 4.8589	3 40·67 4 40.37 9 38·50	4·87 4·98	17·78 17·81	0 15.88 8 15.90 8 15.81	24·3′ 24·4′ 24·5
Week endin Dec. 6 ,, 13 ,, 20 ,, 27 Jan. 3, 19: ,, 10 ,, 17	123·56 123·62 123·60 123·59 31 123·65 123·72	92·72 92·75 92·75 92·75 92·74	20:362 20:361 20:368 20:381 20:390 20:404 20:424	12:066 12:060 12:050 12:060 12:060 12:060	0 163·73 0 163·66 6 163·66 0 163·79 1 163·89	5 25·05 5 25·02 4 25·01 9 25·04 2 25·05	0 18·10 3 18·09 0 18·10 2 18·12 6 18·13	2 4.857 6 4.856 5 4.857 5 4.856 9 4.856	6 38·05 5 37·16 2 36·55 6 35·44 9 34·91	4·76 4·73 4·79 4·59	3 17·76 5 17·79 0 17·80 9 17·79 1 17·78	5 14·03 13·56 13·4 13·13 11·9	24·5 24·5 24·5 24·5 24·5 24·5 8 24·5

^{† 25°2215} before June 24th, 1928.

[‡] Moratorium.



Scale applicable to all lines.

*NORMAL SEASONAL CHANGE REMOVED.

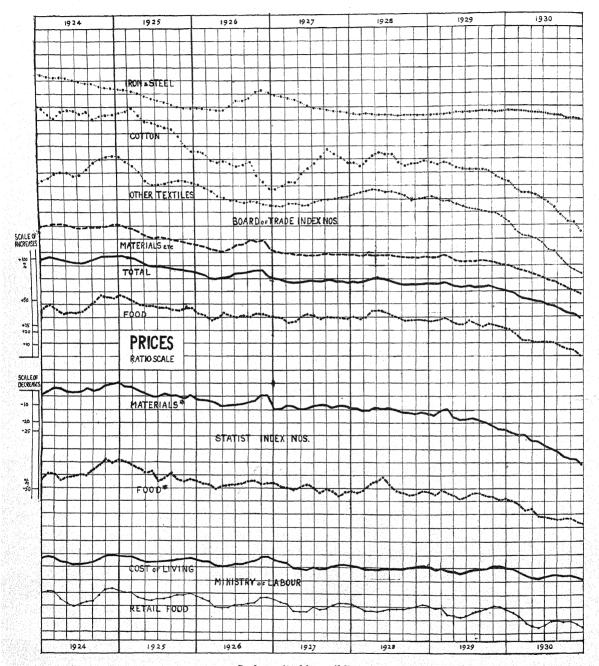
FINANCE.

	ST	ocks &	SHAR	ES	NE	x 1	BANK	CLE	ARING	s.	OF THE SHOW HE AS	- Mahamanyanan	OT	HER B	ANKI	яG.	irentelepullaria	-			MONE	z. [
	7	strials	Fix Inte		CAPI	ral	Londo Clear	n Banl ing Ho	kers'	Pro- vincial	Ban	k of			9 Clea				BILLS	ex.	ž.	gi
	New Index of Price	Sensitive Indexe Month-to-Month Variations	Index of Price	Index of Yield	for U.K.	for Abroad.	Tow		Country.	11 Towns. V	Private Deposits.	Bank and Currency Notes.	Deposits.	Discounts.	Advances.	-	Ratio of Cash to Deposits.	Ratio of Advances to Deposits,	TREASURY I	rt Money Index.	Day to day rate.	3 months' rate.
	%	\$ ¥ %_	%	%	£Mn.	£Mn,	£M	n.	£Mn.	£Mn.		£Mn.	1	£Mn.	£Mn.	£Mn.	%	W %	£Mn.	Short	%	%
1924 Average	100		100	100	7.4	11.2	2070	¥	226	147	109	390	1632	242	791	324	11.7	48.5	601	100	2.43	3.45
1925 1st Qr. Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	109 107 109 116		100·3 98·5 98·0 96·3	99·7 101·5 102·2 103·9	13·8 14·6 3·8 11·9	5·3 7·8 3·1 13·1	2230 2140 1950 2140	2130 2080 2100 2230	235 235 221 234	150** 140** 135 146	114 107 112 110	382 386 385 379	1634 1609 1619 1631	227 199 231 237	827 849 841 841	289 273 257 261	11.8 11.9 11.9 11.8	50·6 52·7 52·0 51·5	611 573 615 641	116 138 125 119	3·10 3·96 3·41 3·42	4·03 4·46 4·08 4·01
1926 1st Qr. Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	118 116 117 119	•••	96·8 97·0 96·2 95·5	103·3 103·1 103·9 104·7	14·7 8·1 8·5 15·7	11·3 9·8 6·2 10·2	2070 2100 1990 2150	1970 2040 2150 22 50	231 219 205 226	141 123 117 128	107 103 108 104	371 381 374 371	1610 1600 1634 1662	209 195 226 225	866 875 874 887	255 244 247 251	11.7 11.9 11.8 11.8	53·8 54·6 53·5 53·4	611 578 624 667	140 137 137 140	4·15 3·92 3·95 4·02	4·54 4·37 4·40 4·63
1927 1st Qr. Av. 2ndQr.Av.	122 124		97·0 96·6	102·9 103·5	17.8 16.5	9·8 5·8	2228 2253	2117 2190	251 238	135 131	105 98	364 377	1660 1659	220 200	803 913	245 237	11·6 11·7	54·5 55·1	642 576	135 127	3·91 3·68	4·23 4·07
JULY AUG SEPT OCT NOV DEC	126 127 129 134 134 133		96·1 96·8 96·9 97·2 96·9 97·8	103.5	23.2	18.6 -1 1.8 22.9 25.6 12.8	2040 1940 2140 2260 2280 2190	2160 2220 2230 2340 2360 2380	239 219 213 242 236 236	135 129 123 144 137 138	100 100 100 102 99 102	376 374 376 373	1682 1669 1663 1710 1694 1729	216 205 211 232 233 235	915	237 236 234 238 236 234	11·5 11·5 11·5 11·4 11·3 11·7	54·6 55·0 55·2 53·7 54·0 52·9	593 617 617 641 648 664	125 128 126 125 125 125	3·47 3·85 3·67 3·60 3·56 3·60	4·34 4·32 4·31 4·34 4·31
1928 JAN FEB MAR APR MAY JUNE	. 144		98.6 98.1 99.2 100.9 100.3 100.0	101·9 100·9 99·1 99·7	18·7 10·6 25·8	19·6 5·3 23·0 8·0 13·5 16·0	2370 2290 2300 2440 2400 2440	2270 2170 2180 2370 2410 2310	247 235 229 252 246 229	140 137 137 143 134 122	110 101 104 102 95 103	364 367 376 372	1747 1698 1672 1690 1688 1731	196 197 199	935 937	235 233 232	11.1	54·1 55·6 55·3 55·5	642 597 542 520 535 568	124 124 126 124 123 117	3·40 3·56 3·79 3·75 3·63 3·17	4·29 4·20 4·17 4·03 3·96 3·74
JULY AUG SEPT OCT NOV DEC	. 145 . 147		99·4 98·7 98·5 98·2 98·7 100·1	101·4 101·5 101·8 101·4	29·7 17·0	17·7 1·0 10·7 10·9 11·0 6·7	2190 2230 2300 2350 2330 2320	2320 2540 2390 2430 2410 2470	246 223 211 244 236 245	132 116 117 130 125 140	105 103 99 100 99 67+3	374 374 369 367	1749 1732 1732 1753 1752 1806	254 244 248 248	933 932 930 939 942	236 237 244 243 241	11·1 11·2 11·0 11·0	53·8 52·7 53·6 53·8	622 654 703	120 124 126 130 125 123	3·38 3·48 3·69 4·06 3·52 3·25	3·95 4·28 4·25 4·33 4·38 4·36
1929 JAN FEB MAR APR JUNE	. 148 . 143 . 143	- 1·0 - 3·4 0 + 0·3 - 2·7	97·1 97·9	101·9 102·9 102·3 102·9	26·2 24·8 28·8 12·3	29·4 6·8 9·0 6·0 8·8 11·4	2570 2440 2230 2210 2250 2560	2460 2310 2120 2150 2250 2430	250 236 237 253 241 235	131 138 136 127 118 122	68+3 58+3 63+3 61+3 61+3	6 353 8 355 6 359 6 363	1809 1777 1739 1743 1732	260 214 5 191 2 195	968 980 987 977	246 244 244 244	10.5 10.6 10.8 10.9	54·5 56·4 56·6 56·4	774 712 707 702	125 162 160 158 159 156	3·54 5·06 4·58 4·44 4·69 4·23	4·31 5·23 5·38 5·27 5·23 5·28
JULY AUG. SEPT. OCT. NOV. DEC.	. 141 . 142 . 134 . 120	- 4.2 + 2.5 + 1.1 - 5.2 -11.3 + 0.5	94·2 93·5 93·9	106.2 107.0 106.5 106.3	2·2 1·5 7·5 6·3	6.6		2510 2560 2510 2530 2530 2530 2820	248 226 224 248 242 248	129 112 114 123 123 127	63+3 65+3 63+3 70+3 55+4 58+3	6 371 6 362 7 360 2 358	1778 1759 1754 1768 1751 1773	225 222 227 227	980 971 971 970	242 242 241 235	10.7 10.9 10.7 10.6	55·7 55·4 55·0 55·4	792	160 156 157 189 177 151	4·73 4·13 4·21 5·27 5·38 4·64	5:33 5:47 5:49 6:22 5:66 4:80
1980 JAN FEB MAR APR. MAY JUNE	. 115 . 119 . 118	- 4.6 - 2.6 + 6.5 - 3.4	96·1 98·1	104.2 102.0 99.7 101.7	8·0 16·9 11·9 17·8	18·2 9·4 9·4	2400 2770 2340 2360	2630 2280 2360	236 234 249 235	119 121 120 114 104	64+3 59+3	6 352 5 348 6 350 6 361 6 356	1767 1714 1682 1712 1742 1788	218 181 207 246	973 976 970 957	229 225 225 231	10.8 10.9 10.7	56.8 58.0 56.7 54.9	678 615 571 585	125 104 82 68	4·04 3·85 3·35 2·23 1·94 2·13	2.14
NOV DEC	105 111 105 106	+ 6.0 - 9.9 + 2.8	99·2 99·7 101·3 103·9	100.9 100.4 98.5 96.3	3·5 1 2·4 7 12·8 3 11·5	2·6 17·7 8·4	2220 2070	2430 2300 2140	224 207 230 226	95	65+3 66+3	34 367 34 358 36 357 33 355	1794 1764 1764 1791 1801	279 284 296	936 927 924	250 255 257	10.6 10.6	53.0 52.6 51.6	648 649 6656	69 65 65 70	1.65 2.04	2·29 2·09 2·11 2·23
1931 JAN	97	2.3	103.5	96-8	₃ 1		<u> </u>		'	1	65+3	3 350							784	68	1.87	2.17
*Excluding	¥ Brad	NORM.			NAL e						For		m Dec. of Exc				<i>ers</i> , se 1 I	cond fi	gure Otl malgam	iers. ated N	ov. 22	1928.

STOCKS & SHARES— NEW CAPITAL ISSUES— BANK CLEARINGS—

BANK OF ENGLAND— PRINCIPAL BANKS— TREASURY BILLS— SHORT MONEY INDEX— New Index Nos. of Prices and Yield as percentage of 1924 level; on 15th of month. See Spec. Mem. No. 33. Sensitive Index.—Geometric Mean of monthly percentage changes. Issues during month in Gt. Eritain (a), for U. K. (b), for Abroad, excluding Government loans, etc.—See MONTHLY REVIEW OF THE MIDILAND BANK, ILD.
Total of Town Clearings (i.e., excluding Metropolitan) of London Bankers' Clearing House for 3 weeks covering Stock Exchange settlement days, Consols settlement day, and 4th of following month. Country Clearings of London Bankers' Clearing House and Provincial Clearings for 11 towns—proportionate totals for 24 working days. Deposits, other than public, 11th-17th of month.
Bank Notes and Currency Notes in circulation 11th-17th of month Issues amalgamated, November 22nd, 1925.
"Current, Deposit and other accounts," etc. Averages for the month of 9 clearing banks (i.e.—excluding the National Bank, Ltd.).—MONTHLY REVIEW OF THE MIDILAND BANK, LTD.
Total outstanding in middle of month (11th-17th). Average of Bank Rate, Bankers' Deposit Rate, 3 Months' Bill Rate and day-to-day rate for week ending 15th of month, expressed as percentage of 1924 average.

Day-to-Day Rate and 3 Months' Rate. Averages for week ending 15th of month.



Scale applicable to all lines.

¥ NORMAL SEASONAL CHANGE REMOVED.

PRICES AND WAGES.

U.S.A. PRICES.

99.2

		Annual County District Annual County of the Party of the		WHOLES.	AT/E.	- CANADA		Contraction and particles	RETA	TT	THATTIC	BUR	EAU OF	LABOR
	Bar	Board o	f Trade Ind		l	t (Sanerh	eck) Index	Nos	M. of L		WAGES.	ale	1 - 4	
	Silver (Cash).	General.	Food.	Materials. etc.	Foo	d.	Raw Materials.	Total.	Cost of Living.	Food.	New Index of Average Weekly	Wholesale	Retail Index (Food)	Cost off Living All items
	d. per oz.	%	%	%	%	%	%	%	%	. %	Wages.	F %	%	%
1924 Average.	34.0	100	100	100	100	¥	100	100	100	100	100*	100	100	100
1925 1st Qr. Av 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	32·2 31·4 32·4 32·3	101.6 96.0 93.9 92.0	105·6 100·6 98·3 97·2	99·4 93·6 91·6 89·2	105 97 96 93	104 97 96 94	101 96 96 95	103 97 97 95	101 99 100 101	102 98 100 101	100·5 101 100·5 100·5	106 104 106 106	5 104 E 104 110 113	102* 104‡
1926 1st Qr. Av 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	31·0 30·2 29·1 25·2	88·6 87·2 90·2 90·4	92·8 93·1 92·5 93·9	86·3 84·1 89·0 88·5	91 92 93 90	90 91 93 92	92 89 90 94	92 90 91 92	98 96 98 101	96 94 95 99	100·5 100·5 100 100·5	104 102 101 100	111 110 107 111	102* 103‡
1927 1st Qr. Av 2nd ,, ,,	. 25·3 26·1	85·6 84·8	90·8 91·6	82·9 81·2	89 91	89 90	88 87	89 89	97 94	94 91	101 101	97 95		101*
JULY AUG SEPT OCT NOV DEC.	. 25·6 . 25·7 . 26·6	84·9 84·8 85·5 85·1 84·9 84·5	92·4 90·9 92·2 91·7 91·4 90·8	81·1 81·7 82·1 81·7 81·6 81·1	87 88 86 83 85 86	86 88 87 84 87 87	88 89 88 89 89	88 88 87 87 87 87	94 94 95 97 97 96	92 92 95 96 96 95	100 101 101 100·5 100·5 100·5	96 97 98 99 99	105 104 105 107 107 107	5 100°5
1928 JAN FEB MAR APR MAY JUNE	. 26·3 . 26·3 . 26·2 . 27·4	85·0 84·3 84·6 86·1 86·4 85·8	92·1 91·1 91·4 95·4 95·8 94·7	81·3 80·9 81·1 81·3 81·6 81·3	86 89 93 94 97 92	86 88 92 93 96 91	87 86 86 88 86 86	87 87 89 90 91 88	95 94 94 94 94 94	93 91 91 90 92 92	100·5 100 100 100 100 100	98 98 98 99 100	104 103 104	5
JULY AUG SEPT OCT NOV, DEC	27·3 26·5 26·8 26·7	84·9 83·8 82·8 83·1 83·0 83·1	91·9 90·7 88·7 89·2 89·3 89·1	81·3 80·3 79·8 79·9 79·7 80·0	88 85 84 84 85	87 86 84 85 86 86	85 84 84 84 85 84	87 85 84 84 85 85	94 94 95 95 96 95	92 92 92 93 94 93	100 99·5 99·5 99·5 99·5	100 100 100 100 99	106 108 107 108	100
1929 JAN FEB MAR APR MAY JUNE	25·8 26·0 25·9 25·3	83·2 83·3 84·4 83·4 81·7 81·6	88·7 89·4 90·3 88·5 86·3 86·2	80·3 80·0 81·2 80·7 79·3 79·1	85 87 86 86 82.5 83.5	85 87 85 85 81:5 82:5	84 86 87 82 80 5 79 5	84 86 87 84 81	94 95 92·5 92 91·5	91·5 92 88 87·5 86 87·5	99.5	99 98 97	106 3.5 106 3.5 105 3.5 104 7.5 105 3.5 106	99.8
JULY AUG SEPT OCT NOV DEC	24·2 23·8 23·0 22·6	82·7 81·8 81·7 81·9 80·6 79·7	89·4 86·8 85·8 87·2 85·6 84·6	79·2 79·1 79·5 79·1 78·0 77·1	86 84·5 83 82·5 80 81	85 85 84 8 3 ·5 81·5	80·5 80 79·5 78 76 76	83 82 81 80 78 78:8	93 93·5 94·5 95·5 95·5	90 90·5 91·5 93·5 93·5	99 99		9.5 110 9.5 110 3 110 3 109	·5 100
1980 JAN. FEB. MAR. APR. MAY JUNE	20.2 19.2 19.5 19.2	78·8 76·9 74·9 74·4 73·3 72·6	83·4 81·0 77·7 77·6 76·5 76·6	76·3 74·7 73·4 72·6 71·5 70·4	80·5 79 76 77 73 72·5	80·5 79 75·5 76 72 71·5	74 73 72 70 69 66·5	77 75 74 73 71 69	94 92 90 89 88 88*5	90·5 88 84 82 81 83	99 98·5 98·5 98·25 98·25	9: 9: 9:	5·2 106 3·9 105 2·6 103 2·5 104 0·8 103 3·5 101	
JULY AUG SEPT OCT NOV DEC	16·0 16·3 16·8 16·7	71·7 70·9 69·5 68·0 67·4 65·5	76·4 75·9 74·4 72·9 72·5 69·8	69·2 68·2 67·0 65·4 64·7 63·3	72 69·5 70 70 68 67·5	71 70 70·5 71 69 68	65 64 62·5 61·5 61 59	68 66 65 65 64 62:£	89·5 89·5 89·5 89·5 88·5 87·5	84·5 84·5 84·5 84·5 83 81	98·25 98·25	8 8 8	5 6 99 5 6 99 5 8 100 1 2 99 2 0	
JAN	13.7	* NORI	WAL SEA	ASONAL T	VARIATIO	ON REM	NOVED.	1	*Dec	ember, 19	98·25 924.		No rent re	

PRICE OF SILVER-

Average (cash) price of bar silver for week ending 15th of month.—ECONOMIST.

BOARD OF TRADE INDEX—Geometric Mean of Wholesale Prices (averages for month) of 150 commodities as percentage of 1924 average.

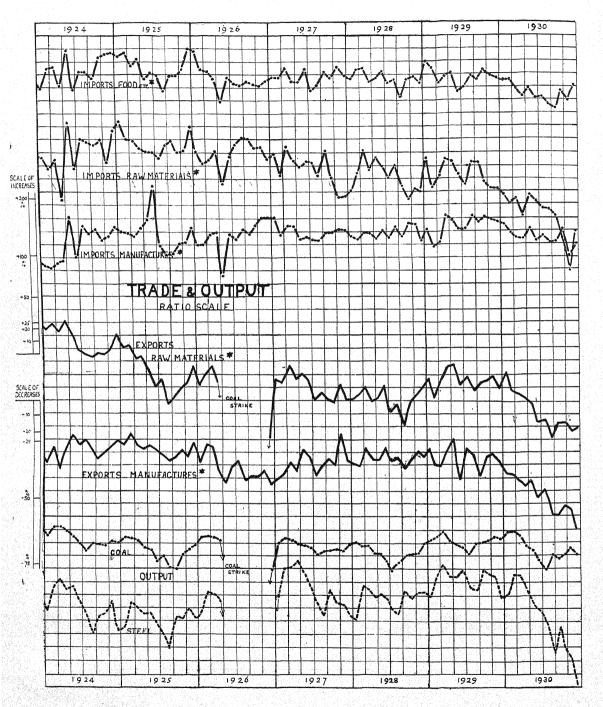
—BOARD OF TRADE JOURNAL.

STATIST (SAUERBECK) COST-OF-LIVING INDEX- Average wholesale prices of 19 foodstuffs and 26 raw materials on last day of month, as percentage of average for 1924.—STATIST.

Ministry of Labour's index showing movement since 1924 in cost of maintaining unchanged the standard of living prevalent in working-class households before the war. For 1st of month, but placed against previous month—e.g., reading for March 1st is shown against February—to facilitate comparison with "Statist" index. As above, for food only.

RETAIL FOOD PRICES-WAGES INDEX-

For description see Special Mem. No. 28.



Scale applicable to all lines.

* NORMAL SEASONAL CHANGE REMOVED.

TRADE AND OUTPUT.

			TOTA	LIM	PORT	S (Val	ues).				EXP	ORTS	F U	K. GO	ods	(Values)		0	UTPUI	1	SHIP B'LD'
	Food, Drink an Tobacco		Ra Mate		Ms fact	nu- ures.	(incl)	otal iding laneous)	TOTAL. NET IMPORTS.	Drin	od, k and acco.	Ra Mate	w	Ma: factu		Tot (inclu- Miscella	ding	Coal.	Pig Iron.	Steel.	Tonnag Com- menced
	£Mn.	1	£Mn.		£Mn		£Mn.		£Mn.	£Mn	l	£Mn.		£Mn.		£Mn.		Tons Mn.	Tons 000	Tons 000	Tons 000
1924 Average.	47·6 ★	3	33.3	*	25.0	×	106.4	*	94.8	4:7	*	8.9	¥	51.6	*	66.8	*	21.2	520	641	263
1925 1stQr.Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	47·9 <i>51</i> · 45.4 <i>47</i> · 44·7 <i>43</i> · 52·8 <i>49</i> ·	8	27.9	38·1 33·7 34·3 35·6	31·3 23·1	26·4 31·4 23·3 25·7	117·3 108·6 96·1 119·2	116.2 112.6 101.9 110.8	104·0 95·4 84·3 105·4	4·7· 4·1 4·5 5·0	5·7 4·7 4·1 4·2	8·1 6·9 6·1 7·0	8:2 7:1 6:1 6:7	55·3 49·0 50·0 51·2		69.6 61.3 62.2 64.6	69·9 64·7 60·1 63·4	21·3 19·2 17·8 19·7	537 509 422 448	608 589 524 597	202 190 261 161
1926 1stQr.Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	46·1 49· 40·8 42· 43·8 43· 46·2 42·	0	35·0 28·4 30·5 37·0	3 0·6	24·2 26·3	25·1 24·2 26·5 29·2	107·1 93·7 101·0 112·5	106:4 97:4 106:0 106:1	94·8 83·9 92·4 101·6	4·2 3·6 4·3 4·6	5·1 4·2 3·9 4·0	6·7 3·8 2·0 3·2	6·9 4·0 2·0 3·2	40·9 45·0	50·2 4 3 ·1 43·7 42·3	63·2 49·5 52·6 52·0	63·5 52·5 50·8 51·1	21·5 —† —	499 207 13 38	665 245 56 161	193 168 68 152
1927 1stQr.Av. 2nd ,, ,,	43·1 <i>46</i> · 43·4 <i>44</i> ·	0	34·7 28·6			28·1 26·4	107·0 98·8	106·5 102·5	96·5 87·2	4·1 3·8	4·9 4·5	6·7 6·7	6·8 6·8	44·8 45·6	44·1 48·0	56·8 57·3	57·1 60·4	21·1 20·3	524 631	782 799	580 437
JULY AUG SEPT OCT NOV DEC	10.0 17.	1 8 5 4	28.2	30·8 28·1 33·7 27·9 24·2 24·5		25·1 26·7	93·4 90·1 101·4 105·0 107·4 105·4	97·0 95·8 107·6 99·6 100·5 97·9	83·7 81·3 93·4 95·5 96·9 95·1	4·3 4·4 4·7 5·0 5·4 4·7	4·0 4·0 4·0 4·2 4·7	5·8 6·0 5·9 6·2 6·6 5·8	5.7 6.1 5.8 5.7 6.5 5.8	44·8 47·7 48·8 48·7 57·2 45·8	43.0 45.8 48.2 46.2 57.6 47.4	56·1 59·4 60·6 61·2 70·6 58·8	53.9 57.2 59.3 57.2 69.7 60.4	18·9 19·4° 19·5 19·8 19·6 20·6°	583 538 552 539 538 505	643 590 712 655 641 591	} 370 } 377
1928 JAN FEB MAR APR MAY JUNE	43·4 44; 41·7 47· 47·0 47· 41·0 43· 42·7 44; 45·8 46·	9 1 3		25.3 28.6 33.5 29.1 31.8 30.6	29.2	25·3 26·5 26·4 25·4	100·4 98·8 110·5 96·8 99·4 99·4	95.7 102.0 108.2 99.1 102.6 105.0	90·1 87·2 99·2 85·8 87·6 87·9	4·3 4·5 4·2 3·8 4·0 3·8	5·1 5·6 4·9 4·7 4·6 4·2	5.8 6.0 6.3 5.3 6.2 6.1	5·8 6·0 6·3 5·7 5·9 6·4	48·3 45·5 53·4 45·0 46·4 48·0	46.3 45.5 51.4 47.9 47.6 51.5	59·7 57·2 65·0 55·3 58·6 59·5	58.5 58.3 63.7 59.5 60.1 63.7	20·7 20·1 20·2 19·3° 19·2° 18·2	506 532 535 526 534 526	574 731 712 675 690 664	} 342 } 279
JULY AUG SEPT OCT NOV DEC	48·2 <i>44</i> ·48·3 <i>44</i> ·	209	20·6 24·2 29·9	30·5 26·2 23·8	29.1	25.8	95·5 97·7 87·7 102·7 106·8 101·5	98·5 10 3 ·8 92·4 97·4 99·9 94·0	87·0 88·9 80·8 93·8 96·0 92·4	4·4 4·8 4·8 5·3 5·6 4·6	4·1 4·4 4·1 4·2 4·3 4·6	5·4 5·6 4·9 6·2 6·1 6·3	5·3 5·6 4·8 5·7 6·0 6·3	49·2 50·1 45·2 50·8 49·9 46.8	47·3 48·2 44·7 48·1 50·3 48.5	60·9 62·2 56·6 64·3 63·8 60·4	58.6 59.9 55.3 60.0 62.8 62.1	16·9 17·8° 18·8 19·0 19·2 20·5°	486 469 470 491 508 492	611 594 702 665 699 699	} 245 } 432
1929 JAN FEB MAR APR MAY JUNE	49·6 50· 40·0 47· 42·1 42· 42·6 44· 44·2 45· 39·6 40·	0999	27·0 28·5 30·9 29·2	31.9 25.7 28.1 31.5 31.1 28.3		29·7 28·9	116·5 90·9 98·6 104·1 103·4 91·5	110·5 97·3 96·5 106·5 106·8 96·7	106·7 80·5 88·6 93·8 93·0 81·9	4·2 4·0 3·8 5·0 4·6 3·9	5·0 5·1 4·4 6·0 5·2 4·4	6·6 5·6 6·6 6·8 7·8 6·1	6.7 5.8 6.6 7.3 7.4 6.4	47.0	45·9 45·2	66.9 55.7 58.6 60.2 67.4 49.9	65.7 58.6 57.4 64.8 68.9 53.5	21:0 21:5 22:2° 20:8 20:3° 19:9	509 520 533 571 591 614	673 775 841 773 773 812	} 362 } 428
JULY AUG SEPT OCT NOV DEC	45·1 <i>43</i> ·	9 8 0	22·9 24·7 24·2 27·3 30·0 31·2	26.5 31.1 30.9 26.8 25.7 25.5	27·4 29·5 28·4 30·2 28·2 27·8	28·6 29·5	93.6 101.0 98.4 110.3 108.2 106.4	96.6 107.3 104.1 104.7 101.2 98.9	85.6 92.0 91.6 101.1 100.0 98.6	4·7 4·5 4·8 5·4 5·7 4·9	4.4 4.1 4.3 4.9	6.9 6.0 6.5 7.1 6.9 6.2	6.7 6.1 6.4 6.5 6.8 6.2	53.2 50.8 42.2 50.3 48.6 44.6	51·1 48·8 41·7 47·7 49·0 46·2	66.5 63.0 55.1 64.6 63.1 58.4	63.9 60.7 53.9 60.3 62.1 60.0	18·9 20·3° 20·4 20·6 21·3 20·9*	607 616 620 622 589 581	708 705 811 783 763 661	} 360 } 499
1930 JAN: FEB MAR APR MAY JUNE	42·9 43· 37·3 43· 40·0 40· 36·7 38· 39·6 41· 37·7 38·	8 7 1	24·0 24·1 20·7 23·1	23·8 21·0	28·1 25·6 27·7	28.2 26.6 25.6 25.3 27.4 25.1	101·9 88·2 93·4 83·9 91·0 83·4	97·4 94·4 91·4 85·9 9 3 ·7 87·8	93·7 79·6 85·8 76·1 82·0 75·6	4·6 3·7 4·0 3·6 3·8 3·2	5.5 4.7 4.7 4.4 4.3 3.6	6·9 5·8 6·0 5·4 5·8 4·7	7·0 6·1 6·0 5·8 5·6 4·9	44·7 41·2 42·5 36·7 39·8 33·8	42.6 40.9 39.1 40.8	58·3 51·9 53·9 46·9 51·0 42·8	57.5 54.6 53.0 50.5 52.3 45.8	22·1 22·1 21·5 19·9° 19·3 18·0°	587 607 601 578 555 526	679 776 773 696 621 600	} 427 } 230
JULY AUG SEPT OCT NOV DEC	39.2 \$8. 37.2 \$6. 36.7 \$5. 44.1 \$0. 40.6 \$7. 44.4 \$1.	7 3 7	19·1 17·5 16·5 18·1 16·5 20·6	22·0 21·1 17·8 14·2	24·2 24·6 27·7	26.0 24.6 24.8 27.1 22.3 24.4	85·2 79·9 78·7 90·9 79·4 89·6	87·6 84·3 82·5 86·2 74·9 83·9	78·6 73·6 73·3 83·7 72·6 84·4	4·4 4·0 4·2 4·4 4·8 3·5	4:1 3:6 3:5 3:7 3:5	5·2 4·4 5·0 5·3 4·7 4·7	5.0 4.4 4.9 4.9 4.6 4.7	39·7 33·1 32·0 35·9 32·7 27·6	31.8 31.7 34.0 33.0	50·7 42·8 42·7 46·9 44·1 38·5	48.6 41.1 41.7 43.7 43.2 39.5	16.9 18.6° 18.2 18.7 19.8 18.7*	439 376 397 375 358 317	547 441 532 451 424 322	} 161 } 132

[†] Trade Dispute.

* NORMAL SEASONAL CHANGE REMOVED.

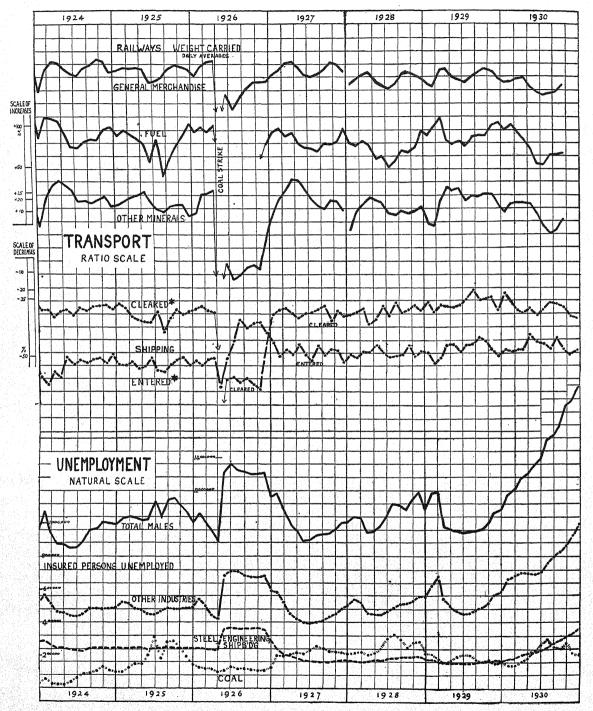
IMPORTS & EXPORTS—
Declared values of imports (c.i.f.) into U.K., and exports (f.o.b.) of U.K. produce and manufacture. Not imports = Total imports less exports of imported goods.—MONTHLY ACCOUNTS OF TRADE & NAVIGATION.

Total for 4 weeks ending approximately at end of month.—BOARD OF TRADE JOURNAL.

Output for standard four-week month, based upon monthly figures issued by the NATIONAL FEDERATION OF TRADE INGOIS & CASTINGSIRON AND STEEL MANUFACTURERS.

SHIPPING.

⁴ Weeks, excluding holiday week. Excludes Christmas week, but includes New Year.



* NORMAL SEASONAL CHANGE REMOVED.

TRANSPORT.

UNEMPLOYMENT.

			SHIP	PING.				RAIL	WAYS			1	NSUR (Gr	ED PE eat Brit	RSON ain an	S UNI d North	EMPLO i Irelan	YED.‡		
	To	nnage with Ca	of Shir	s	Inde		Stand	reight ard Gan Veight	uge Ra	ilways. Re-			el.	Male ši		pi d	в		Fema	
		ering British			Time Charter Rates.	Freight Rates.	General.	Fuel	Other Minerals	ceipts. All Goods.	Total.	Coal.	Iron & Steel.	Engineering	Shipbuilding	Building and Construction.	Cotton and Wool.	§ Other Industries.	Total.	Cotton and Wool.
	0000 t	ions	0000	tons	%	%	1	000 tons		£ Mn	000	000	000	000	000	m♂ 000	000	000	000	000
1924 Average 1925	461	*	544	*	100	100	544	1743	551	8.89	941	72	52	116	78	99	35	344	263	62
1st Qr. Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	417 465 489 479	464 463 450 472	507 516 523 531	545 500 502 532	105 92 89 94	95 82 78 87	544 514 528 551	1733 1517 1491 1713	539 538 517 512	8·88 8·31 8·53 8·89	1034 1058 1107 1063	125 219 250 191	59 62 64 58	100 95 96 95	83 81 85 90	108 77 83 110	27 31 39 26	371 351 355 345	286 273 290 241	45 60 73 42
1926 1st Qr. Av. 2nd ,, ,, 3rd ,, ,,	422 453 644 618	469 451 594 606	507 364 343 352	545 363 330 354	91 103 138	79 78 98 138	546 429 445 4 96	1778 667 336 1056	544 376 331 365	9·10 5·81 5·64 7·92	1003 1186 1314 1259	119 109 108 111	50 108 132 108	97 121 135 134	88 90 96 100	117 94 109 139	31 59 69 49	348 454 511 460	243 335 376 307	49 106 130 86
1927 1st Qr. Av 2nd ,, ,,	447 511	515 509	498 536	536 520	112 113	104 95	543 532	1754 1605	542 5 9 8	9·42 9·00	1032 913	201 220	41 39	97 75	73 54	134 82	29 24	356 296	236 175	46 39
JULY AUG SEPT OCT NOV DEC	544	47 5 528 496 513 508 467	561 565 572 529 529 492	531 544 556 501 537 516	101 103 103 103 101	84 86 91 92 94 92	515 538 556 570 568 511	1564 1565 1656 1620 1674 1721	548 534 520 542 548 483	8·85 9·00 9·36 9·38 9·31 8·65	925 927 935 963 1003 1005	257 243 228 223 221 206	41 42 41 46 50 52	66 66 70 70 70 70 67	48 49 47 45 47 46	85 88 104 125 144 171	28 29 29 31 34 29	290 297 297 298 307 305	189 203 191 193 207 189	49 52 44 49 54 45
JAN FEB MARCH APRIL MAY JUNE	474 484 528	504 529	493 475 538 486 550 570		96 92 90 90 90	84 81	500 510 552 480 519 488	1506	559 501 564	8·60 8·78 9·48 8·07 8·65 8·31	1043 1026 944 945 979 1053	210 215 199 208 245 298	45 43 45 47 44 45	67 67 66 68 66 66	43 44 46 48 50 55	177 157 122 114 103 109	29 26 26 27 28 35	331 331 307 304 314 318	218 202 183 183 189 221	47 41 42 46 49 66
JULY AUG SEPT OCT NOV DEC	. 544 . 534 . 516 . 563 . 481	489 49 2 530 489	549 597 547 570 549 516	575 532 540 558	90 91 98 103 116 119	87 87 92 98	488 505 510 574 540 475	1481 1486 1636 1629	508 494 537 528	8·19 8·41 8·50 9·34 8·98 8·19	1122 1114 1089 1148 1189 1088	295 250 279 281	51 51 48 47 47 47	67 72 72 70 74 70	57 57 62 67 66 61	114 116 127 141 159 163	40 44 43 39 37 34	341 348 349 354 367 353	255 261 266 255 264 246	81 83 79 71 66 60
1929 JAN FEB MAR APRIL MAY JUNE	391 457 516	469 488 537 538	541 462 552 551 601 575	535 559 558 554	113 109 108 108 108	95 89 88 86	522 448 515 532 525 484	1711 1849 1613 1646	424 519 584 596	9·13 8·26 9·27 8·95 8·94 8·39	1189 1197 980 960 956 942	170 147 175 198	43 42 36 37 37 37 39	76 72 64 64 65 61	56 52 50 46 46 46	206 252 141 116 104 100	37 38 34 39 37 38	388 393 350 332 325 315	277 257 224 222 221 221	63 60 56 63 69 72
JULY AUG SEPT OCT, NOV DEC	588 589 583 513	539 562 549 5521	618 648 596 622 586 517	625 580 589 595	109 116 119 104 96	83 84 77 77	524 513 523 579 536 477	1688 1660 1811 1845	560 548 606 573	9·05 8·82 8·88 9·69 9·33 8·24	947 951 961 1008 1061 1078	173 162 165 153	41 40 39 41 47 45	61 68 68 68 70 70	47 49 51 51 49 48	103 108 121 143 172 181	40 41 36 36 40 42	314 331 335 339 356 359	231 247 243 249 265 269	
1930 JAN FEB MAR APRIL MAY JUNE	42° 484 498	7 513 1 517 3 518 9 579		5 532 3 551	83 84 86 86	64 61 66 66 65 68	468 512 484	1563 L 1621	503 540 5506 465	9·13 8·41 8·92 8·19 8·65 7·27	1173 1209 126 1301 1357 1396	142 155 177 235	55 64	91 98 100	50 55 55 58	195 177 160 147	63 67 71 85	461	374 427 460 499	12 13 15 18
JULY AUG SEPT OCT NOV DEC	600 564 585 555	5 17 8 561 7 524 6 504	51	9 567	777	1 61 1 70 9 68 - 62 - 68	48. 44. 47. 51.	0 1434 4 152	4 413 9 456	7·54 8·17	1519 1546 1608 1738 1771 1847	5 252 5 246 5 282 1 225	80 83 91 98	125 137 151 158	70 76 82 86	166 178 200	105 103 103	532 552 581 610	573 584 584 59	3 21 4 20 4 19 8 19

† Increase on pre-war rates raised from approx. 50% to 60% on Feb. 1st, 1927.

‡ Excluding any disqualified for benefit by trade dispute.

* NORMAL SEASONAL CHANGE REMOVED. § Excludes Commerce, etc.

TRANSPORT: SHIPPING—ENTERED AND CLEARED...... SHIPPING FREIGHTS-RAILWAY TRAFFIC-

RECEIPTS

UNEMPLOYMENT-

INSURED PERSONS-

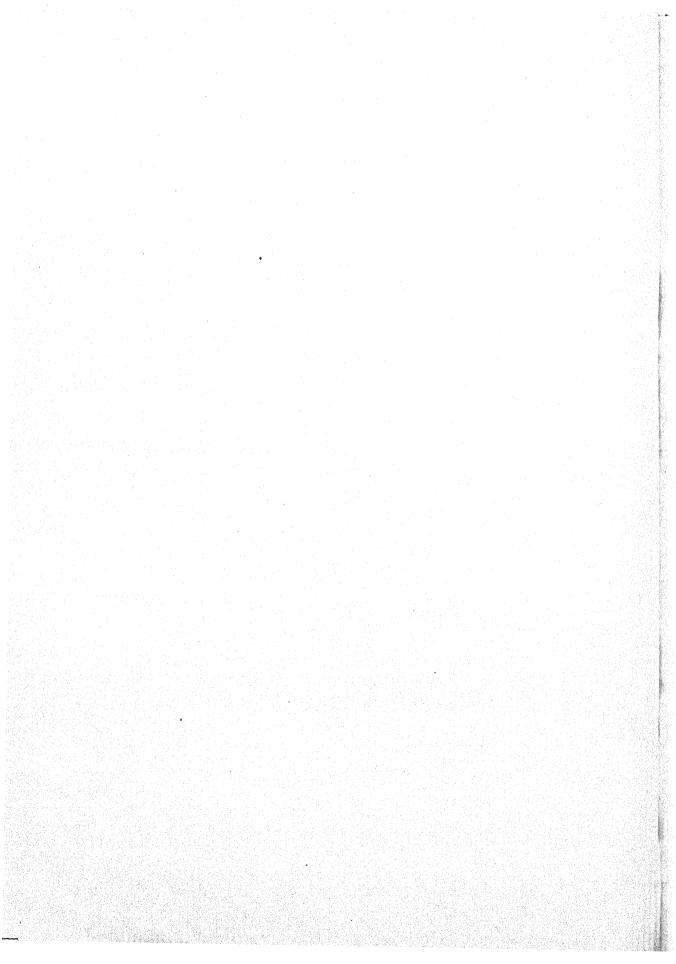
Tonnage of British and Foreign ressels entering and leaving British ports with cargoes during month.—BOARD OF TRADE MONTHLY ACCOUNTS OF TRADE & NAVIGATION. Chamber of Shipping index numbers as published by "The Statist,"-PREPARED BY DR. ISSERLIS.

Tonnage of goods carried on the Railways of Great Britain during the month, excluding free-hauled.

Monthly Receipts for goods traffic, excluding cost of collection and delivery till January, 1928, then excluding receipts for collection and delivery.—MINISTRY OF TRANSPORT.

Number of books lodged at Labour Exchanges on or about 25th of month,

MINISTRY OF LABOUR GAZETTE.



ROYAL ECONOMIC SOCIETY

ISSUED BY ARRANGEMENT WITH THE LONDON AND CAMBRIDGE ECONOMIC SERVICE

MEMORANDUM No. 27

REPORT ON CURRENT ECONOMIC CONDITIONS IN EUROPE

February, 1931

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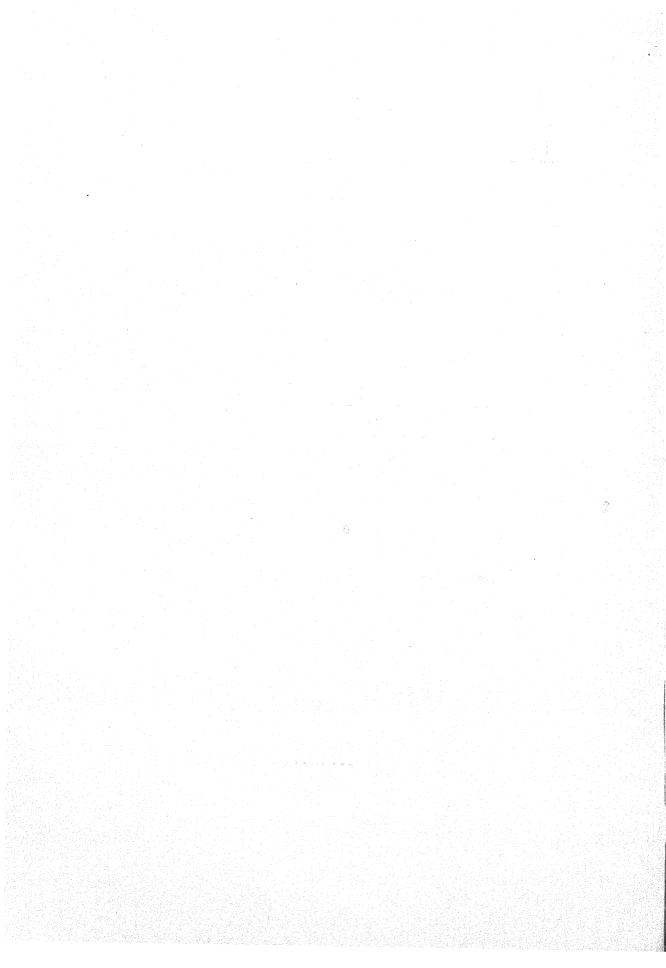


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Netherlands		•	•				•	•	•		22

UNITED KINGDOM.

Additional Figures published since January 22nd, 1931.

		and the second s
Stocks and Shares (Old Series). End Dec. Price of 20 Industrials 182% ,, 8 Speculative 143% ,, 4 Fixed Interest 85·1% Yield on ,, , ,	End Jan. 176% 141% 85 5% 117%	Railways. Weight carried— Nov., 1930 Merchandise (A) Tons 4,493,000 Fuel , 16,397,000 Minerals and Merchandise (B) ,, 4,391,000 Goods Receipts £8,178,000
New Capital Issues. For Great Britain For Abroad Nine Clearing Banks.	January £7,843,000 £4,489,000 Dec., 1930	Goods Receipts £8,178,000 Exchanges. Week ending Paris Milan Berlin Amsterdam Jan. 24th 123.88 92.73 20.428 12.066 ,, 31st 123.90 92.75 20.433 12.076
Deposits	£1,839 Mn. £320 Mn. £915 Mn. £269 Mn.	Prague Zurich Stockholm New York Jan. 24th 163 94 25 088 18 134 4 8539 ,, 31st 164 02 25 108 18 141 4 8558
Money. Short Money Index	΄,,	B.Aires Riode J. Bombay H. Kong Kobe Jan. 24th 34'20 4'43 17'781 11'83 24'47 ,, 31st 34'19 4'22 17'784 11'95 24'46 Unemployment. Numbers on the Live Register, together with Part-time Workers not actually employed on the dates mentioned.
	ing Jan. 31st 1931 Jan. 31st 108% 96% 100%	Gt. Britain—Males. Females. 1930 Dec. 29th 1,962,700 680,400 1931 Jan. 5th 1,952,000 665,800 ,, 1,2th 1,968,100 668,100 ,, 1,9th 1,942,200 666,200 ,, ,, 26th 1,925,000 667,700

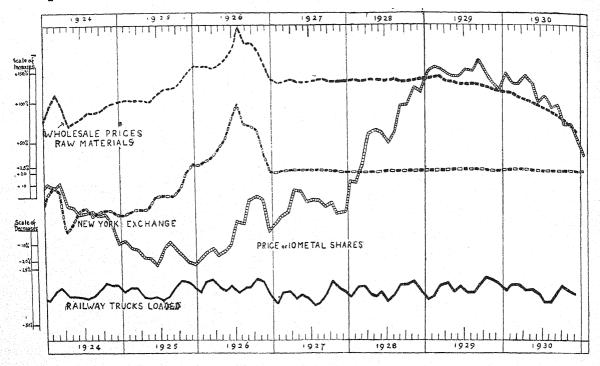
FRANCE.

Information communicated by M. LUCIEN MARCH, Directeur Honoraire de la Statistique Générale de la France.

January 26th, 1931.

THE past year has been a bad one in France as in other countries. The stock exchanges have been inactive in spite of abundant capital and low

money rates. Commodity prices have fallen continuously and consequently the value of stocks has depreciated. The number totally unemployed was relatively limited at the end of the year, but this



was because industrial and agricultural requirements were formerly met by influx of foreign labour which has now been extremely reduced, departures exceeding arrivals.

The fall in security values which began at the end of 1929 had been preceded in 1926 by a cessation of the rise in commodity prices. In other periods the same phenomenon occurred, e.g., in 1880-2; and also before the recovery took place money rates fell to a very low level. At the beginning of this year the Bank of France reduced its discount rate to that very same record low level. Also contango rate cannot be reduced any lower than at present. If one could record a considerable reduction in stocks of many commodities and a definite slackening in the fall in prices, this might be a forerunner of the end of the depression, but it is not so yet. On the other hand the fall in prices may continue for some time with the same rhythm before the minimum at the end of last century Thus there appears no is reached. decisive reason for an immediate recovery in business activity.

Possibly the financial situation, in the share market, will cease to deteriorate before the industrial situation definitely improves. The bankruptcies which depressed the market at the end of the year have had their effect on shares. Marry positions had to be liquidated by sales on a market where buyers were holding back. On the other hand this situation has encouraged bears to precipitate the fall. But, just as many holders of falling shares are retaining them in the hope of better days, so those who have capital to invest are waiting for some signs of stabilisation before buying, so that bears have sometimes had to pay backwardation in executing their transactions; sometimes they have to buy back shares and consequently raise their price in order to meet their engagements. Speculation for a fall has also become more difficult on the official market of late, for brokers have raised the proportion of cover required on transactions for the account. These circumstances may lead to some improvement in quotations if the state of foreign markets does not upset the favourable factors.

Weakness in the general situation has reacted upon State finance. The beginning of the financial year has been changed from April 1st to January 1st, but the totals for the last two periods Direct taxes. may still be compared. assessed mainly on revenues of the preceding year, produced in 1930 a sum nearly equal to that in 1929. Indirect taxes yielded 3% less than in 1929; in the first three months of the year there was still some excess over 1929, but in the last nine months the returns were lower, especially towards the end of the year. Allowance must be made for certain reductions which became effective in April. One of the chief was in the tax on initial sales of real property, which was lowered from 7% to 3%, but the revenue therefrom does not enter into general revenue but is allocated to the sinking fund. receipts of that fund have fallen for the first time, not only for the above reason, but also on account of reduced yield from succession duties. However, a rise in tobacco prices produced a higher total for the year, but totals were lower in the later months. The financial position is therefore less satisfactory than last year, and the Bourse crisis is largely responsible.

Since the beginning of last year the Bourse has been singularly inactive, the volume of transactions fell almost to a third of that in the previous year. The index for fixed interest securities ceased to rise in the second half of the year, and then declined, but only moderately. The variable dividend index fell continuously, and is 30% below the level at the beginning of 1930. The table below

INDICES OF SHARE PRICES. (January, 1930, as 100.)

1930-31	3% Rentes.	Railways.	Deposit Banks.	Commercial Banks.	LandBanks.	Metals.	Electricity.	Textiles,
April July October January	101	98	98	98	98	100	140	93
	98	103	90	90	90	86	97	82
	99	101	82	83	85	70	87	72
	97	99	76	70	80	56	75*	54*

* Provisional.

shows the inequality of the movements in different categories. Textiles and metals have suffered seriously, while electricity and banks have suffered less.

Bankers' clearings (Paris) have shown little change since last year. Paris current account business at the Bank of France diminished slightly at the end of the year; these cover transactions which are not necessarily good indices of activity. The predominant feature of the Bank of France's transactions during the year is the considerable acquisition of gold and the correlated issue of an imposing volume of notes.

As shown in the table below, the reserves increased by 12 milliard francs, i.e. nearly 30%, while foreign assets increased rather than diminished. The gold question is primarily a result of the restoration of convertibility, the bank being obliged to issue notes for gold offered. Secondly, French capital, which had previously sought remunerative outlets abroad, was repatriated when its security became less assured, or when customers' withdrawals of funds from the banks to meet losses compelled the banks to increase their liquid assets. The counterpart of the gold imports was the 10 milliard expansion in the note circulation in a year. In spite of the hoarding of notes which may have resulted and the increase in capital issues, many of the notes have passed into active circulation. In view of the stagnation on the stock market, the consequence is adverse to a fall in retail prices and the cost of living.

	ST	ocks	& SH	ARES		rns.	EXCHA	NGE	ВА	VNK O	F FRA	NCE.			WHO	LESA:	LE.		RET	AIL
	Index	Nos. of		s of	Issues.	e Returns.	Mont Avera		tion.	Sum of		++				In	dex No	os.	Index (Pa	ris)
	% 3 % Rentes.	% 3% Railway Debentures.	% 10 Metal Shares	% 5 Financial Shares.	New Capital	TO Clearing House	bo- Sterling.	#5 → Dollar.	H S Note Circulation	% Paris.	% Provinces, stipe	K F Private Deposits	% Discount Rate.	per kilo 000 f	per kilo f	% 45 items.	% Food only.	% Raw Materials.	% 13 items.	% Cost of Living.
Pre-War. 1904-13.	97.5	97.0	114	117	184	12	25.2	5.17	50	100	100	647	3.5	3.44	99	100 Ye	100 ar 19	100	100	100
1924 1st Qr.Av 2nd,,,, 3rd,,,,	55·7 54·8 54·7 51·8	65·9 63·4 64·5 54·4	183 154 149 135	181 162 170 167	1907- 1913. 1368 543 295 425	403 331 247 245	94·0 76·4 84·0 85·7	21·9 17·6 19·0 18·9	392 398 402 405	723 618 534 591	944 897 887 1021	2565 2134 1948 1893	6	13·92 11·73 12·56 13·06	461 395 436 446	510 456 479 501	469 434 444 455	548 479 512 542	July, 1914 384 376 367 394	1st Qr 1914 365 366 367 377
1925 Lst Qr. Av 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	45·8 46·6	48·8 49·3 52·3 47·2	119 107 117 107	155 142 153 153	295 464 209 358	259 291 262 428	96.2	18·9 19·9 21·3 24·8	408 430 450 481	574 595 580 837	971 971 1002 1177	1983 1989 2321 2665	7 6 ,,	13·13 13·43 14·43 17·08	433 446 506 583	513 523 555 601	463 478 499 509	557 565 604 678	411 416 425 447	386 390 401 421
1st Qr.Av 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	47·4 49·3	50·0 48·8 48·7 53·7	113 114 148 155			409 476 481 461	154.9	27·2 31·9 37·1 29·5	513 527 554 540	794 897 881 938	1170 1314 1425 1527	2898 2742 3176 3991		18·77 22·70 25·53 19·59	616 735 802 575	631 690 795 684	545 613 708 658	707 757 872 713	491 523 584 617	451 485 539 545
1st Qr.A 2nd ,, ,,		69·0	145 170			284 256		25·5 25·5	527 525	695 805	1270 1315	4911 8542		16·78 16·98	498 505	629 627	629 627	635 632	586 583	524
JULY AUG SEPT. OCT NOV. DEC	58·8 59·1 57·2 57·2	68.6 68.1 67.7 70.3 66.9 69.3	163 157 160 149	268 268 268 258	325 399 976 619	246	9 124·0 6 124·0 6 124·0 4 124·0		529 539 554 554	687 635 629 811 744 824	1133 1132 1165 1340 1326 1346	12523 11976 10924 10697 10459 10710	;; ;; ;; ;;	16·98 16·98 17·38 17·48 17·48 17·48	495 485 495 495 515 515	618 615 598 585 592 602	597 584 557 529 542 564	642 647 637 635 638 638	557 539 532 520 500 500 523	}507 }498
JAN FEB MAR APRII MAY JUNE	69·9 69·4 69·2 72·4	73·1 72·1 72·0 71·7 73·7 82·7	185 212 264 270	325 335 386 386 355	783 870 718 2 688	26 28 29 36	7 124·0 5 124·0 8 124·0 9 124·0	2 25·4· 2 25·4· 2 25·4· 2 25·4· 2 25·4·	580 1 589 0 600 0 597	890 805 823 1023 1308 1326	1328 1247 1316 1456 1494 1276	10234 8224 7804 7998 8459 .7609	4 3·4 ,,	16.98 16.98	505 505 505 505 515 525	604 607 6 21 622 630 624	567 575 605 600 622 615	641 637 639 644 642 637	530 522 524 532 546 557	}507 }519
JULY AUG. SEPT. OCT. NOV DEC.	69·5 68·9 67·3	80·7 80·4 80·1 80·9 80·3 79·2	268 322 325 369	489 496 45 496 496	9 440 5 584 7 1526 5 932	35 37 38 38 37 37	3 124·2 1 124·1 6 124·1 3 124·1	0 25·59 8 25·69 5 25·69 2 25·59	609 613 620 614	849 762 837 912 846 1064	1805 1280 1376 1452 1498 1686	6524 6761 8403 8059 10372 11562	77 77 77 77	17.08 17.08	502 502 510 515 510 505	622 615 617 615 623 621	609 588 602 594 607 600	638 642 636 637 643 644	547 540 544 566 585 596	}519 }531
JAN FEB. MAR APRII MAY . JUNE	73·4 73·4 74·9 75·8	78.0 76.7 74.9 75.4 78.8 78.4	420 417 406 397	7 480 7 480 7 425 7 425	3 1092 0 1406 3 1475 5 1113	36: 40: 40: 41:	3 124·2 6 124·2 3 124·2 5 124·1	4 25.6 5 25.6 1 25.5 3 25.5	0 626 0 629 9 633 9 634	821	1466 1444 1463 1516 1520 1562	12099		17.08 17.08 17.08	505 485 495 490 480 465	628 636 637 625 621 609	611 623 622 622 620 603	647 651 655 632 628 618	599 602 607 615 626 624	}547 }556
JULY AUG SEPT. OCT NOV DEC	76·2 80·9 81·6 81·8	78·7 78·1 78·4 79·9 80·0 83·2	410 440 407 379	0 410 0 428 7 394 9 373	621 3 921 4 2293 5 1429	46 42 48 41	4 123·8 6 123·8 0 123·8 1 123·8	9 25·5 7 25·5 7 25·4 6 25·3	5 650 5 655 4 669 9 666	761 864 954 905	1513 1473 1497 1558 1755 1644	12099 11865 11934 12487););	17.08 17.08 17.08 17.08	465 465 460 445 435 435	611 595 596 588 582 574	608 570 576 570 566 557	618 620 617 608 598 592	606 606 602 612 618 614	}555 }565
JAN FEB MAR . APRII MAY JUNE	90.6 89.9 89.6 91.3 89.5	88.3 87.7 83.8 86.5 86.3 87.6	378 378 401 382	392 3 392 4 406 2 392	2 3261 L 2354 S 872 L 1210	43 46 47 51	8 124·1 0 124·2 6 124·1 1 123·9	7 25·5 7 25·5 2 25·5 0 25·4	4 691 5 700 2 712 9 711	908 952 914 1074	1550 1509 1462 1502 1500 1512	10669 10606 9467 10150	3 ,,	1177.00	410 395 375 380 370 305	561 562 551 546 540 531	536 540 534 534 533 528	587 585 570 561 549 537	609 598 591 586 590 593	}568 }572
JULY. AUG. SEPT. OCT. NOV. DEC.	90.5 91.5 90.4 88.7	89·9 91·6 90·1 88·9 87·9 87·1	322 328 286 286	2 348 3 349 3 322 3 316	8 887 9 1351 2 3650 6 1134	43 48 48 38	2 123·8 6 123·7 0 123·8 0 123·6	1 25·4 8 25·4 5 25.4	2 727 6 729 9 740 6 747	754 816 925 822	1438 1606 1681	12546 12555 14078 15785	, ,	17.08 17.08 17.08 17.08 17.08 17.08	325 320 315	536 530 522 507 492 485	553 553 548 536 526 535	506 488 468	637 637 647	}592 }597
1931 JAN.	88.0	86.8	227	267		1	123.8	5†25·50	 777	1		18434		17.08			1			

† Provisional.

Including Sinking Fund.

FINANCE.
Value of Stocks and Shares
Clearing House Returns.—
Exchanges.—
Bank of France.—
PRICES.
Wholesele.—
Retail.—

Index numbers for 15th of month.

Total clearings during the month at the Bankers' Clearing House of Paris.

Monthly average of daily rates in Paris.

Middle of month, except Debits and Credits, which are based upon daily averages.

Index calculated by the Statistique Générale de la France for 45 commodities at the end of the month. Index for Paris calculated (1) for 13 commodities by the Statistique Générale during the month, giving each commodity a weight corresponding to the consumption of a family of four persons; (2) for all expenses of a working-class home according to the Paris Commission on the Cost of Living.

TRADE, OUTPUT, TRANSPORT & EMPLOYMENT.

	I I I I I I I I I I I I I I I I I I I	IMPO	RTS.*		Section with Deck Aust	EXP	ORTS.*	OFFICEARCHER		**************************************	(UTPU	r,	SI	IPPIN	G.	RAIL	WAYS	EM	P'T
	Total,	Food.	Raw Materials.	Manufactures.	Total.	Food.	Raw Materials.	Manufactures.	Wei	ght f Ex- ports.	Coal (excl. Saar).	Pig Iron.	Steel.	Entered. Suppose	Cleared. se	INLAND TRANS. PORT BY WATER.	Average weekly Receipts of chief Railways.	Av. daily No. of Trucks Loaded.	work	
Pre-War	Mn.f.	Mn.f.	Mn.f. 353	Mn.f. 103	Mn.f. 474	Mn.f. 65	Mn.f.	Mn.f. 274	Mn. Me 2.89	tr.Tns. 1·24	000 3346	Metric 7 540	ons. 374	Mn. Tons 2.24	Mn. Tons	Mn. Tons 9.02	Mn.f. 34	000.	%.	%_
1904-13). 1924 1st Qr.Av 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	3408 3216 3110 3644	646 735 810 778	2341 2056 1915 2400	421 425 385 466	3658 3436 3055 3669	367 298 280 387	1008 878 700 925	1282 2260 2075 2358	4·38 5·00 4.87 4·58	2·19 2·38 2·51 2·71	3646 3535 3694 3795	605 649 644 653	556 573 582 591	3·06 3·68 3·82 3·64	2:25 2:86 3:08 2:69	Total 7:87 9:60 9:68 9:62	129 155 166 158	52·9 51·7 52·2 56·2	237 302 352 252	140 193 226 155
1925 1st Qr.Av 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	3275 3004 3549 4832	593 605 956 884	2246 1970 2176 3429	436 429 417 520	3640 3568 3531 4399	291 260 271 387	1012 952 986 1238	2334 2357 2274 2774	3·81 3·74 4·06 4·20	2·63 2·44 2·47 2·55	3957 3796 3870 4060	665 698 718 742	595 594 625 658	3·23 3·87 3·85 3·71	2·60 3·23 3·41 3·04	8·5 9·6 9·8 9·3	160 164 183 183	54·4 51·4 52·4 57·1	185 242 303 248	113 143 188 156
1926 1st Qr.Av 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	4941 4864 4959 5074	877 863 1062 1057	3444 3339 3216 3457	620 662 681 561	4413 4496 5328 5609	371 362 433 525	1263 1251 1416 1627	2779 2882 3479 3457	3·91 3·89 3·71 3·66	2·65 2·66 2·79 2·72	4213 4109 4292 4527	747 776 797 811	672 681 709 732	3·35 3·77 3·75 3·84	2·77 3·26 3·30 3·26	8·4 10·2 10·3 10·1	190 210 253 258	56·4 55·0 54·2 56·0	239 313 361 176	136 188 222 99
1927 1st Qr. Av 2nd ,, ,,	4424 4615	1255 1189	2730 2903	439 523	4667 4318	399 409	1460 1342	2808 2566	4·40 4· 2 8	2·98 3·13	4538 4276	774 772	668 688	3·67 4·34	2·92 3·73	9·4 10·8	212 230	51.7 51.5	37 48	19 26
JULY. AUG SEPT OCT NOV DEC	4068 3772 3571 4476 4632 5216	1124 1043 1050 1104 1106 1118	2470 2286 2081 2840 3077 3539	474 443 440 532 449 559	4499 4288 4545 5050 4870 5021	456 354 409 514 610 616	1370 1172 1336 1476 1505 1517	2673 2762 2800 3060 2755 2888	3.66 4.22 3.62 4.10 3.81 3.91	3·30 3·06 3·34 3·38 3·22 3·42	4194 4299 4133 4291 4101 4322	769 773 761 795 762 796	677 694 693 723 682 735	4·39 4·17 4·14 4·16 4·03	3·80 3·73 3·66 3·80 3·48 3·51	} 10·8	237 238 252 249 232 234	48:4 49:1 52:8 58:0 55:1 53:5	76 83 103 94 81 76	42 51 70 57 42 37
JAN FEB MAR APRIL. MAY JUNE	4124 4321 4525 4604 4052 4701	920 929 1038 961 849 935	2745 2812 2842 3024 2628 3064	459 580 645 619 575 702	4017 4423 4319 4291 3985 4215	529 535 530 498 491 582	1080 1176 1102 1120 1006 979	2408 2712 2687 2673 2488 2654	3·52 3·65 4·09 4·33 4·16 4·15	3·00 3·59 3·31 3·44 3·26 3·58	4349 4164 4470 4053 4162 4374	809 784 857 834 870 843	750 738 804 736 794 797	3·56 3·55 4·25 4·41 4·54 4·60	3·15 3·11 3·86 3·91 4·03 4·36	}10·5	209 222 245 254 255 259	51·8 55·4 56·1 52·6 51·7 53·4	66 73 94 124 166 274	33 39 53 66 92 147
JULY AUG SEPT OCT NOV DEC	4049 4164 4229 4730 4736 5213	907 1045 1154 1261 1265 1286	2503 2439 2392 2706 2698 3136	639 680 683 763 773 791	3941 4170 4191 4449 4614 4734	499 401 443 482 590 661	942 1059 1138 1168 1194 1114	2500 2710 2610 2799 2830 2959	3·92 4·14 4·23 4·35 4·21 4·24	3·37 3·74 3·85 3·33 3·35 3·26	4172 4359 4179 4607 4387 4088	836 868 822 857 850 882	751 793 757 834 800 828	4·65 4·75 4·60 4·67 4·25 4·52	4·07 3·99 3.95 3·96 3·97 4.05	}12·9	262 274 292 281 267 265	50·1 52·2 56·6 57·2 58·4 54·2	307 320 358 254 234 241	183 178 232 150 122 124
JAN FEB MAR APRIL . MAY JUNE	5173 5162 4934 5144 5062	1198 1169 1154 1174 1157 1159	3260 3243 3030 3109 3103 3101	715 750 750 861 801 906	3702 4118 4180 4419 3959 4350	465 466 490 562 462 547	1035 1060 1028 1137 1019 1077	2202 2592 2662 2720 2478 2726	4·32 4·29 4·69 5·07 4·92 5·32	3·01 3·27 3·11 3·33 3·09 3.62	4425 4094 4562 4457 4337 4432	904 781 880 871 897 865	838 742 804 810 820 795	4·14 3·68 4·81 4·95 5·21 5·03	3·53 3·24 4·03 4·28 4·38 4·43	} 8·49	272	50·7 51·9 56·0 57·1 53·7 55·6	230 203 266 299 329 338	107 106 150 168 188 195
JULY AUG SEPT OCT NOV DEC	. 4627 4340 4353 4516	1102 1057 929 1001 1084 956	2682 2470 2579 2660 2810 3114	843 813 845 855 895 910	4269 3804 4221 4386 4268 4396	507 417 465 553 563 571	1031 1012 1090 1063 1034 978	2731 2375 2666 2770 2671 2847	5·06 5·12 5·15 5·04 5·17 5·29	3·74 3·21 3·61 3·22 3·31 3·48	4736 4568 4299 4858 4603 4363	878 893 851 894 852 879	811 827 763 847 786 813	5·13 5·38 5·05 5·27 4·89 4·56	4·21 4·58 4·28 4·40 4·19 3·65	3.08	304 293	53·4 55·3 56·3 59·3 58·4 56·7	376 363 378 260 243 240	206 216 269 170 134 124
JAN FEB MAR APRIL. MAY JUNE	4778 4808 4431 4566 4103	862 872 864 823 817 786	2988 2948 2527 2696 2476 2419	928 988 1040 1047 810 960	3714 4018 3958 3888 3733 3352	515 579 509 473 524 555	892 954 912 897 916 780	2307 2485 2537 2518 2293 2017	5·21 5·38 4·68 5·52 4·93 4·74	2·91 3·23 3·35 3·01 3·09 2·97	4884 4481 4695 4459 4526 4126	876 815 898 854 899 841	800 772 848 787 853 753	4·75 4·15 4·75 5·20 5·37 5·69	3·70 3·34 4·08 4·44 4·83 4·37	12.8	261 270	54·5 56·7 56·6 54·3 54·5 53·1		106 109 119 132 144 170
JULY AUG SEPT OCT NOV DEC	4120 4068 4206 4520 4250 4330	837 927 1289 1313 1214 1211	2263 2297 2044 2209 2187 2244	1020 844 873 998 849 875		527 374 406 464 504 453	822 743 755 771 825 723	2181 1991 2198 2268 2112 2051	DATE OF THE PERSON	Marie Constitution of the last	4499 4356 4513 4684 4290	861 845 800 827 781 800	-	5·46 5·50 4·61 6·25 3·90	4·62 4·51 4·87 4·35 3·90	13.6	285 295 296 292 268	50·3 50·3 53·3 56·5 54·3 52·8	259 264 198 137	125 75

^{*} Import figures are based upon declared values. Export figures declared values since 1927, previously based on official values.

TRANSPORT.

Shipping.—Tonnage of ships of all nationalities entered and cleared (with cargoes) during the month.

Trucks.—Daily average number loaded on all the principal railways (including State railways but not including those in Alsace-Lorraine).

EMPLOYMENT.

BANK OF FRANCE. Milliard Francs.

		19	30		1931
1930-31	Jan. 17th	Apr. 18th	July 18th	Oct. 17th	Jan. 16th
Gold Foreign Assets—Bills and	42.7	4 2 .3	44.9	50.6	54.5
Sight Deposits Discounts (commercial) Advances Note Circulation Deposits, Treasury and	25·7 6·6 2·5 68·7	25·7 4·7 2·6 70·9	25·7 5·0 2·7 72·3	25·3 4·9 2·9 73·3	26·3 7·3 3·0 76·9
Sinking Fund Sinking Fund Private Reserve Ratio (%)	7.0	6·3 6·8 50·2	8·2 7·0 51·1	11.6 8.1 54.1	13.5 10.0 53.9

On the other hand, the matter of capital movements has tended to embarrass certain foreign centres and depress the exchanges, whilst other difficulties have increased the price of gold. since the standard of fineness accepted by the Bank of France was higher than the new level fixed by the Bank of England, gold coming from the latter country had to be refined again, which involved expense and loss of time. For the present, to avoid this difficulty, the Bank of France has decided to accept gold not less than 800 milliemes fine, which will allow the machinery of the gold standard free play between London and Paris. On the other hand, the reduction of the discount rate to 2% will retard the inflow of capital, especially if increases occur in other countries. Although the general balance of payments appears to be favourable, the trade balance is still adverse, the excess of imports amounting to nearly 10 milliard francs in 1930 as against 8 Md. in 1929. Imports have fallen, but exports have fallen still further. The fall in prices affects the imports, and the exports to a lesser extent.

	IMPO	RTS*	EXPO	RTS*
Year	1929	1930	1929	1930
VALUE Mn. francs. Food Materials Manufactures	13167 35125 9928	11814 29299 11231	6078 12568 31493	5881 9991 26958
Total	58220	52344	50139	42830
Weight 000 tons. Food Materials Manufactures	6712 50630 2 119	6374 52044 2342	1513 33033 5360	2143 29631 4805
Total	59461	60760	39906	36579

* Special Trade, i.e., excluding re-exports.

The tonnage of shipping entered and cleared indicates increased imports but

much diminished exports. There was some increase in the weight of imports of raw materials, although their value was smaller, but exports of manufactures declined in weight (10%) and value (15%); there was an increase in the weight and value of imported manufactures. These figures suggest that the cost of manufacture is falling more elsewhere than in France. During December, exports were still diminishing more than imports as compared with December 1929, and the excess of imports was nearly doubled.

Compared with last year there was an increase in net imports of coal, mineral oil, building materials, tropical timber, whilst in exports the diminution was

general.

The next table shows the distribution, by value, of the trade with different countries. Except from Germany (reparations) there was a diminution in imports, both from the colonies and other countries, due to the fall in prices. In exports there was a general fall, especially to Great Britain, Germany, Belgium, Italy, U.S.A.

DISTRIBUTION OF SPECIAL TRADE. Mn. Francs.

First 11 mos.	Imp	orts	Exports				
	1929	1930	1929	1930			
Great Britain Germany Belgium and Luxemburg Switzerland Italy Spain U.S.A Brazil Argentina Other Countries	5294 5984 3594 979 1391 1314 6366 1011 2265 18572	4830 7306 3834 1046 1387 1352 5503 730 1124 14941	7006 4367 6613 3077 2032 1467 3082 451 979 8221	6376 3864 5097 2870 1568 1047 2275 290 812 7365			
Total Foreign Countries	46770	42053	37295	31564			
Algeria, Colonies and Protectorates	6440	5961	8365	8039			
Total	53210	48014	45660	39603			

The shipping statistics indicate rather greater activity than last year.

Internal trade has been less active, the uninterrupted fall in prices being the principal cause of the stagnation in commerce and production. At the end of the year the general index of wholesale prices was 15% below what it was a year before—4% in agricultural produce, 25% in raw materials. Vegetable produce has

risen, while animal produce and also colonial produce fell. The textile material group fell nearly 40%. Movements in the past two years may be studied from the following table. In the total index the extent of the fall changed from 6% in 1929 to 15% in 1930, for raw materials 6% to 22%, while for food it was almost the same, 6%. The greatest reductions from the fourth quarter of 1929 to the fourth of 1930 were rubber 46%, wool 44%, copper and cotton 40%.

Production in general is much lower, especially in the textile and iron and steel trades. Even the output of coal and metallurgical coke shrank at the end of the year; iron ore has not changed much. Pig-iron was 9% lower at the end of 1930 than 1929, steel 10%. There were 156 furnaces in blast on Dec. 1st, 1929, only 138 on Dec. 1st, 1930, and Jan. 1st, 1931. Orders for cotton yarns and tissues have diminished. The activity of the woollen and silk trades, which had already been reduced in the

WHOLESALE PRICES. Average 1901-10=100.

	CHOW THE WORK	wowania a kata a mana a ma	WWW.Vacorrenance	Avera	ge 1901-1	0 = 100.						
		1928		10)29			19	90		% Ci	nange
	No of items.	Qur.		Quar	rters	4.1		Quar	ters.	1 411	4th Qr. 1928 to 4th Qr.	4th Qr. 1929 to 4th Qr.
		4th.	1st.	2nd.	3rd.	4th.	1st.	2nd.	3rd.	4th.	1929.	1930.
Foon— Vegetable Food Animal Food	8 8 4	724 700 636	763 716	745 733 612	657 733	594 760 566	523 755 555	548 722 542	611 736 506	579 728	- 18 + 9	- 3 - 4 - 16
Sugar, Coffee, Cocoa Total Food	20	696	$\frac{632}{718}$	713	609 678	655	622	616	640	475 618	$\frac{-11}{-6}$	- 6
MATERIALS— Minerals and Metals Pig Iron	7 1 1 1 1	654 638 532 547 771 633	686 667 532 672 842 633	671 679 543 615 830 665	670 679 543 615 812 672	648 679 543 612 799 706	634 700 535 614 761 706	574 700 521 446 676 706	554 700 510 373 678 706	501 571 459 365 599 706	- 1 + 6 + 2 + 12 + 4 + 12	23 16 15 40 25 0
Textiles Cotton Wool Silk	6 1 1 1	939 913 1032 674	957 926 1023 667	892 887 963 631	828 897 760 622	746 829 670 598	675 758 557 541	638 696 547 441	563 549 514 352	471 499 422 336	- 21 - 9 - 55 - 11	- 37 - 40 - 37 - 44
Hides, Skins, Tallow Oils Alcohol Petroleum Soda Compounds Benzol Wood Rubber Total Materials	3 2 1 1 2 1 1 1 1 2 5	593 853 595 816 527 1160 1025 85	531 854 592 816 535 1267 1038 95	441 855 555 846 537 1280 1067 90 720	452 954 538 861 505 1280 1081 87	430 1022 561 861 505 1280 1112 72 690	388 1065 558 876 522 1280 1101 63 668	344 1028 531 861 527 1253 1093 56 632	326 943 542 831 509 1240 1051 40	309 810 538 771 508 1147 1071 39	- 28 + 20 - 6 + 6 - 4 + 10 + 8 - 15 - 6	- 28 - 21 - 4 - 10 + 1 - 10 - 4 - 46 - 22
Total Food and	45	714	735	717	696	674	648	625	614	574	- 6	$\frac{-22}{-15}$
Materials	70	1 1 7	100	17.1		UIT.	- JTU	Married Marrie				-

Railway receipts of the main lines were more than 100 Mn. francs lower than in 1929, the reduction being chiefly in the second half of the year. These systems also show a greater deficit on working than last year; this might lead to increased charges, but that would probably only intensify the competition of road transport. The number of wagons loaded daily is more than 10% lower than last year.

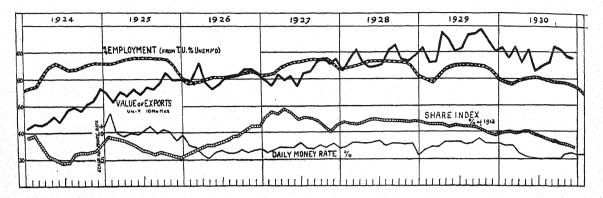
Revenue from turnover tax is much lower than last year. The portfolio of the Bank of France first fell, but then rose and slightly exceeded the figure a year before. The bourses de commerce have been much less active than last year. Bankruptcies were much more numerous at the end of 1930 than 1929.

previous year, was still further affected. Even the building trades showed signs of slackening, but activity has been better maintained here.

The number of persons totally unemployed is higher than it has been since 1927. Immigration of foreign labourers (excepting agricultural) has almost ceased, and it is becoming much more difficult to place workers. There was again a slight increase in retail prices at the end of the year; compared with last year the advance is 5%. There is a corresponding increase in the quarterly cost of living index. Savings bank deposits have a slight tendency to fall, but the receipts from entertainment tax are larger than last year.

GERMANY.

Information communicated by Dr. MORITZ ELSAS (Frankfürt), in consultation with Professor LOTZ (Munich) and Professor von SCHULZE-GAEVERNITZ (Freiburg).



REVIEW OF THE YEAR 1930.

THE world depression which afflicted nearly all countries during 1930 did not spare Germany. about mid September affairs followed the general trend of the world crisis: falling prices, the shrinkage of production and the still greater decline in orders greatly reduced the volume of business. This was also accompanied, as elsewhere, by a reduction in both short and long term rates of interest. The fall in the latter was clearly exemplified by the falling yield of mortgages and debentures. It is true that even before the Autumn the economic position was more affected in Germany than elsewhere by the destruction of capital through war and inflation, by reparations payments and consequent increase of foreign debt on which interest has to be paid, while goods of equivalent value are not imported. But there was still the hope that when prices reached bottom cheaper money would lead to an improvement and recovery from depression.

In September, however, a new factor appeared, and in spite of the lower level of business activity money rates rose, and the disparity between German and foreign interest rates considerably increased. At the same time the depression deepened;

enterprise was further discouraged: foreign balances which had previously flowed in were withdrawn and domestic balances were sent abroad. A general hopelessness fell upon industry and still prevailed at the end of the year. The cause of all this was the elections of. September 14th. Although it had proved impossible to pass sweeping financial reforms in a Reichstag where a majority was only maintained by continual compromise, it was a great mistake to hold elections in a period of severe unemployment and destitution when a swing towards the extremist parties inevitable. Though the task of maintaining a majority in the old Reichstag was not easy, it is more difficult in the new, and has only been made possible by the coalition of the Social Democrats with the Middle Class parties. An alliance between Middle Class parties and a Marxist group is not highly stable and the government can only carry through their programme with the aid of Presidential emergency decrees under Article 48 of the Constitution. The agreement of the Reichstag is purely negative, in that no majority can be found to annul the decree. Although certain parties have allowed their appreciation of the emergency to override their extremism, it is by no means certain how long legislation by decree can continue. While unemployment persists to an hitherto unknown extent the masses will swing towards extremism and another election will not bring a stable majority. A return of better economic conditions is an essential preliminary to an improved political situation.

Apart from the elections, the most important event of the year was the acceptance of the Young Plan by which Reparations payments were to be reduced by 700 Mn. marks and the burden of taxation consequently eased. Neither of these results has been achieved. Under the Gold Clause in the old scheme the annuity would have been reduced by 200-300 Mn. marks and this modifies the apparent reduction under the new plan. Also the welfare index envisaged in the earlier plan could not have increased the burden at the moment under any sensible interpretation. Further, not only has the burden of taxation not been relieved to the extent anticipated, but 1930 has brought supplementary taxation to an extent never before recorded.

There have been increases in taxes on drinks, especially coffee, tea and mineral waters, on tobacco and on petroleum; also there have been increases in the turnover tax and the tax on retail stores; a new tax on the unmarried; a poll tax which is a graded tax for the benefit of the Communes, *i.e.*, a municipal income tax in addition to State income tax. The anticipated relief to taxation has therefore not materialised and the masses have not appreciated the benefits of the difference between the Young and Dawes Plans.

This has weakened the position of the parties who accepted the Young Agreement. The advantages brought by the Plan in freeing the Rhineland from foreign occupation and placing the political debt on a commercial basis have sunk into the background in face of the general suffering.

Agriculture is also depressed, especially in Western Germany, for it is no longer possible to compete with overseas producers. The Government considered it necessary to assist by raising the duty on grain and limiting meat imports. As the milling regulations for German grain did not have the desired effect, an attempt was made in the autumn to peg the price of rye, and prices were considerably increased. When, however, purchases in support of the valorisation scheme ceased, prices fell to the original level and the whole scheme was a costly failure. result of the increased import duties has been that food prices in Germany are automatically increased by the amount of the duty. The protest of the German Federation of Industries against the government's agricultural policy is ineffectual as yet. There are many inherent dangers in this policy. The protective duties on foodstuffs hit the smaller farmers who have to buy cattle-food, for owing to the lower level of prices abroad foreign producers can put dairy and cattle products on the German market at prices at which the small home producer cannot compete. Further, the tariffs will make it more difficult in the future to enter into favourable trade relations with agricultural countries. Moreover, in a country which must export to meet foreign obligations and in which two-thirds of the population are occupied in industry and trade, such an agricultural policy cannot be carried through without loss, apart from the fact that the advance of the cost of living must check the tendency towards lower wages and prices.

In the second half of 1930 the government decided that since industry could not be helped by easing fiscal and social burdens, prices and wages must be lowered. Wages have been reduced to some extent. Increasing unemployment has facilitated wage reductions and convinced the trade union leaders that the maintenance of wage levels is not to the general benefit. The second part of the programme, the lowering of prices, has

FINANCE, PRICES and WAGES.

		cs & si	IARES.		BAI	NKING.		en -	nge.	8	v.		WHOI	ESALE.		RET	TAIL.	REA
	hes	Ca _l Issu	oital es by	Reich	sbank.	Note Cir	culation.	Debt. Juding	xcha	Rate	ptcies		Pig 3 en	Index Pric	Nos. of es of	Index Pric	Nos. of	WAGI
	SHARE INDEX of the Statitisches Reichsamt	New Sompanies.	Existing Companies.	s Clearings.	M Outside	Reichs- gank Notes an only.	Including R other Notes and Coinage.	Floating Debt. Total including Foreign Loans.	H F F S S S S S S S S S S S S S S S S S	Daily Money Rate.	No. of Bankruptcies.	M Silver ss (900 fine)	ad Foundry Pig rsy Iron No. 3 Oberhausen	Food.	All Items.	Cost of Living (Reichs Index)	Cost of Living (Elsas).	All Germany. Index Nos. for
War	<u>%</u> ‡	Mn.	Mn.	Mn.	Mn.	Mn. Aug., 1914	000 Mn.	Mn.	\$	% July, 1914		p. Kg.	M.Ton	. %	%	05	Jan., 1914	191
age 25				6100		4500			4.2	3.12	815	81.0		100	100	100	100	191
r.Av	119·6 99·4 82·0 72·4	13.5 11.6 16.6 26.1	77.7 39.4 41.1 217.9	3889 4190 4475 4421	968 788 836 795	2107 2510 2590 2843	4·36 4·68 4·97 5·07	2841 2700 2534 2424	4·2 4·2 4·2 4·2	11·5 9·4 10·2 9·7	765 753 821 1389	94·4 93·7 96·9 97·4	90 91 89 86	13 3·5 127·6 137·3 133·5	142·2 139·2 143·5 141·3	136§ 137 144 142	129§ 128 132 130	90 96 96 101
r.Av	82·4 97·1 116·8 139·5	10·7 10·3 29·0 22·0	36·8 337·9 282·4 195·7	4158 4527 4769 5504	869 814 712 744	2877 2978 3194 3479	4·94 5·08 5·35 5·57	2330 2237 2176 2193	4·2 4·2 4·2 4·203	8·1 5·6 6·2 6·3	1987 1087 554 464	93·1 89·5 88·2 7 5·9	86 86 86 86	121·0 122·7 131·5 142·1	134·4 132·3 134·0 136·8	139 140 142 143	129 129 132 134	102 102 103 103
27 r.A.v.	167·5 167·6	15·7 19·3	195·4 15 3 ·7	6250 8285	732 675	3488 3737	5·47 5·70	4213† 4400	4·214 4·219	6·4 7·0	508 437	78·9 78·3	86 86	138·5 138·1	135·5 136·7	145·0 146·9	136 140	10 10
JLY. JG PT. CT OV	157·5 151·8 147·0	155·5 31·6 20·0 6·2 12·6 20·5	180·0 70·0 62·6 150·3 140·2 156·1	8753 8580 8660 9574 9064 9506	746 597 668 690 644 525	3928 3935 4182 4237 4181 4564	5·87 5·88 6·14 6·13 5·99 6·30	4333 4331 4329 7933* 7925 7984	4·219 4·206 4·205 4·199 4·188 4·185	8·0 7·0 6·75 7·5 7·0 7·75	428 407 360 445 574 619	78·5 78·2 75·7 77·5 78·2 80·7	86 86 78 78 78 78	137.5 136.8 138.9 137.7 137.3 135.6	137·4 137·7 139·8 139·9 140·3 139·3	150·0 146·6 147·1 150·2 150·6 151·3	141 139 142	10 10 10 10 10
928 .N AR PR AY	148.0 144.3 142.3 148.4 152.8	28·3 17·6 14·3 21·4 14·1	64·2 92·0 36·3 111·6 172·8	10056 8948 10179 9586 10060	655 533 492 614 464	4251 4268 4513 4409 4487	5·92 5·96 6·22 6·11 6·18	7757 7816 7891 7816 7907	4·191 4·197 4·187 4·181 4·181	7·0 7·25 8·0 8·0 8·0	766 699 791 614 692	79·7 78·5 78·7 79·4 81·0	82 82 82 82 82 82 82	132·2 130·1 131·3 133·5 135·9 136·0	138·8 137·7 138·4 139·6 141·0 141·2	150.8 150.6 150.6 150.7 150.6	144 143 144	10 10 10 10 10
JNE JLY UG. EPT. CT OV EC	149·5 149·2 149·5 147·4	58·3 61·4 16·1 23·8 15·3 45·7 13·0	130·9 163·1 104·9 114·9 119·5 129·6 500·2	10699 10573 9911 9420 10983 10037 10550	472 558 541 498 606 569 426	4674 4569 4673 4830 4672 4724 4930	6:37 6:25 6:39 6:57 6:39 6:43 6:65	7965 7898 7901 7968 7910 7991 8489	4·177 4·185 4·189 4·197 4·196 4·198 4·194	8·0 8·5 7·5 8·0 8·0 7·75 8·0	702 655 552 530 685 674 624	83·5 82·3 82·0 80·5 79·5 80·3 79·7	82 82 82 82 82 82 82	136.6 137.6 134.2 134.8 135.2 134.1	141.0 141.7 139.8 140.4 140.3 140.0	151·4 152·6 153·5 152·3 152·1 152·3 152·7	143 146 146	10 10 10 10 10 10
929 AN EB AR PRII AY UNE.	141.2	116·7 133·3 96·7 29·3 17·4 20·4	239·6 53·6 67·8 95·8 103·8 87·7	11825 9781 10107 12146 10769 10146	610 467 449 670 649 603	4454 4553 4822 4631 4606 4839	6·14 6·25 6·54 6·30 6·31 6·50	8331 8567 8950 8932 9122 9410	4·202 4·211 4·214 4·216 4·217 4·196	6.0 7.0 7.5 7.5 8.5 8.5	832 775 930 885 846 803	79·0 78·5 78·4 77·9 75·9 73·6	82 82 82 82 84 85	131·7 133·9 133·7 128·3 124·7 124·7	138·7 139·5 139·9 136·9 135·8 134·9	153·1 154·4 156·5 153·6 153·5 153·4	147 148 145	10 10 10 10 11 11
ULY. UG EPT. CT EC	134.2	13·2 13·8 3·8 10·3 14·5 23·2	84·6 61·3 58·7 41·7 186·9 17·0	11479 9930 9686 11149 9645 9562	615 453 427 453 495 402	4726 4897 4914 4833 4916 5044	6·35 6·54 6·58 6·47 6·56 6·66	9308 9277 9583 9620 9776 9351	4·198 4·196 4·202 4·195 4·178 4·178	8·5 8·0 8·25 9·0 8·0 8·0	845 739 657 840 813 881	72·1 72·9 72·6 70·3 68·9 67·6	85 85 85 85 85 85	132·4 132·6 132·6 131·7 128·4 126·2	138·2 137·9 138·2 137·3 135·3 134·4	154·4 154·0 153·6 153·5 153·0 152·6	146 148 148	11 11 11 11 11 11
930 AN EB AR PR AY UNE	120.6 119.0 122.2	37·9 11·8 8·9 104·1 27·0 10·3	148·0 36·4 18·2 78·2 47·7 33·7	10589 9122 9775 10142 10258 9565	543 502 459 638 556 537	4653 4722 4805 4664 4812 4685	6:15 6:22 6:31 6:17 6:32 6:27	9388 9412 9628 9863 9400 11123	4·184 4·186 4·191 4·189 4·189 4·190	8.0 7.5 7.5 6.0 5.5 5.25	1106 1103 1142 1006 1062 853	64·3 61·1 59·4 58·5 58·9 53·9	85 85 85 85 85 83	121.8 116.0 110.0 112.1 110.7 109.7	132·1 129·8 126·3 126·9 125·8 124·2	151.6 150.3 148.7 147.4 146.7 147.6	147 145 145	11 11 11 11 11 11
ILY IG IPT IV IC	110·0 103·3 102·3 95·8 92·3 87·3	76·2 45·4 157·3 38·6 30·3 11·6	94.6 40.6 81.4 98.6 30.2 36.1	11161 9294 10093 11212 8684 9447	427 447 352 355 282 301	4638 4707 4744 4674 4601 4778	6·21 6·30 6·34 6·27 6·19 6·38	10908 10969 11030 10940 11454 11295	4·195 4·183 4·189 4·202 4·197 4·195	5.0 5.0 5.0 5.0 6.0 6.25	977 810 759 843 829 850	48.6 48.1 48.6 49.4 49.9 49.6	83 83 83 83 83 83	114.8 116.6 113.5 109.3 112.0 110.4	125.5 125.0 123.0 120.0 120.5 117.9	149·3 148·8 146·9 145·4 143·5 141·6	147 144 140	11 11 12 13 11 11
31 N B				9588	323	4383			4·198 4·206	6·0 6·0		44·1 40·6			115 ⁻ 6	140-4	139	

FINANCE Share Index.—

Capital Issues.-Reichsbank-Clearings-Outside Deposits,-

Note Circulation.-State Debt .-

New York Exchange -

Index Numbers for middle of month. Based on 1924-6 average. Wirtschaft und Statistik.

Wirtschaft und Statistik. Wirtschaft und Statistik. Second week of month. End of month.

1st of month

PRICES. Wholesale— Silver.— Pig Iron.— Food and All Items.—

Retail— Reichs Index.—

Elsas Index.-

WAGES .-

1st of month. Monthly average. Wirtschaft und Statistik.
Statistisches: Reichsamt Index — average for
month and middle of month respectively.

For middle of month. Eildienst des statistischen Reichsamtes.
Includes clothing. For 1st of mouth. Indexziffern über die Kosten der Lebenshaltung.
Wirtschaft und Statistik. Weighted average for mosth.

TRADE, TRANSPORT, EMPLOYMENT.

		EXTERNAL TRADE. IMPORTS. EXPORTS.									(OUTPUT	Amerikan Casa ot	SHIP	PING.	ipts.	UNEM	IPLOYI	TN'N
		IMPO	RTS.			EXPO	RTS.		Estim'd in Gold	value Marks				HAME		Goods Receipts.	ing	Perc't Trade	Union
	Total.	Food.	Raw Materials,	M'factures	Total.	Food.	Raw Materials.	M'factures	Imports.	Exports	0000 Coal	ooo Iron.	Steel.	Entered.	Cleared.	Raılway Good	Nos. Receiving Unemployment Relief.	Unem- ployed.	On Short sa
11/			Weight	in 0000	Metric	Tons.			Mn.	Mn.	Metric Fons.	Metric Tons.	Metric Tons.	Tons.	000 Tons.	Mn.M.	000	%	%
Pre-War Average	607*				614*				934	850	1474	910	981	1182	1203				MANAGEMENT
1925 1st Qr. Av. 2nd Qr. Av. 3rd Qr. Av. 4th Qr. Av. 1926	435 452 476 373	65 70 99 59	357 368 364 304	12 12 12 9	278 313 349 338	20 23 15 25	210 246 283 257	47 47 51 55	1203 1079 1196 926	680 697 751 815	1129 1023 1122 1150	925 933 796 740	1182 1096 937 856	1373 1465 1390 1336	1370 1498 1447 1330	233·1 227·5 239·0 238·8	554 340 208 433	7·8 4·6 3·8 7·0	5·8 5·0 6·0 12·1
1st Qr. Av 2nd Qr. Av. 3rd Qr. Av. 4th Qr. Av. 1927	290 328 398 426	47 70 98 89	236 248 290 322	7 8 10 12	357 419 659 632	25 15 14 24	271 345 584 546	61 59 61 62	714 744 950 1120	839 758 833 865	1107 1084 1294 1360	679 708 833 994	852 915 1103 1245	1273 1381 1666 1503	1287 1389 1701 1522	193 0 211 0 239 9 281 7	1861 1823 1648 1358	21·3 19·4 17·5 14·5	21·1 19·7 16·3 10·4
1st Qr. Av. 2nd Qr. Av.	484 550	89 103	379 4 2 5	14 20	471 397	14 16	396 327	60 54	1139 1162	800 794	1338 1197	1038 1083	1319 1331	1500 1666	1486 1659	245·9 266·7	1757 880	16.2 9.1	6·6 3·7
JULY AUG SEPT OCT NOV DEC	646 649 617 617 611 565	127 93 99 106 114 96	499 532 494 486 471 449	20 23 22 24 23 18	424 456 373 390 336 351	12 14 18 22 19 20	353 383 296 308 244 271	59 58 58 58 56 60	1282 1210 1185 1255 1304 1266	849 870 936 963 916 955	1264 1300 1271 1309 1286 1324	1109 1116 1105 1139 1119 1150	1362 1426 1371 1414 1401 1367	1672 1613 1669 1770 1729 1856	1797 1627 1690 1664 1705 1983	266·4 275·4 275·5 297·9 283·9 279·5	541 453 404 355 340 605	6·3 5·5 5·0 4·6 4·5 7·4	2·7 2·6 2·8 2·4 2·0 2·2
1928 JAN FEB MARCH APRIL MAY JUNE	. 481	102 83 88 86 73 84	433 413 453 406 387 441	21 21 22 22 22 19 18	357 364 398 368 338 335	16 18 21 23 24 18	282 285 312 285 254 255	58 61 65 61 60 63	1366 1279 1269 1302 1093 1157	864 944 1024 926 896 895	1342 1293 1412 1172 1193 1183	1180 1123 1170 1045 1044 1021	1469 1324 1422 1161 1248 1294	1836 1565 1770 1854 1895 1823	1823 1712 1922	242·3 254·7	1189 1333 1238 1010 729 629	12·9 11·2 10·4 9·2 6·9 6·3	3·1 3·5 3·6 3·7 4·2 5·0
JULY AUG SEPT OCT NOV DEC	601 598 623 542	96 91 92 98 86 78	486 491 486 506 439 356	18 19 18 18 16 19	368 414 408 397 417 371	17 16 26 35 34 30	285 325 310 302 323 288	66 73 71 60 60 53	1302 1145 1246 1364 1276 1217	917 1028 1061 953 944 984	1248 1302 1216 1331 1214 1182	1035 1031 985 1016 267 882	1311 1329 1190 1306 357 1090	1796 1933 1756 1737 1775 1755	1884 1857 1738 1745	278·6 292·5 317·0 285·9	611 564 574 577 671 1030	6·2 6·3 6·5 6·6 7·3 9·4	5·9 6·5 7·1 6·9 6·8 7·1
1929 JAN FEB MAR APRIL MAY JUNE	417 554 . 589	79 50 52 89 71 64	436 275 350 447 498 505	17 13 14 17 18 18	371 282 359 461 458 439	28 18 19 40 35 31	277 209 285 339 341 336	65 54 55 82 82 72	1332 1024 1031 1266 1133 1113	1102	§ 1341 1276	1098 982 1061 1105 1133 1164	1469 1270 1314 1415 1421 1431	1679 1307 1666 1770 1856 1774	7 1252 5 1662 0 1817 5 1845	251·3 313·5 290·9 282·8	1702 2222 2460 1885 1126 808	19·4 22·3 16·8 11·1	7·5 8·7 8·9 7·5 7·1 6·8
JULY AUG SEPT OCT NOV DEC	670 615 610 586	111 73 77 67 76 76	525 578 520 525 493 426		481 510 560 531 507 528	20 22 31 36 33 28	386 410 455 416 405 430	75 78 74 79 69 70		1127 1140 1169 1095	1447 1348 1484 1416	1204 1167 1109 1157 1090 1100	1234 1377 1286	1744 2026 1914 1989 1903 2006	5 2006 4 1828 9 1959 3 1879	303·3 303·3 301·0 301·0	726 750 889	8.6 8.9 9.6 10.9	6·7 6·9 7·0 6·8 7.0 7·6
JAN FEB MAR APRIL MAY JUNE	504 447 474 457		468 426 380 388 395 403	13 13 14 15	537 455 465 440 518 466		438 369 367 349 419 376	65 71 67 73	1144 884 968 863	966 1046 929 5 1029	3 1217 5 1254 9 1148 2 1195	859	1176 1201 1033 1034		5 168 8 185 6 181 6 206	8 224·1 3 253·9 7 230·1 2 247·7	2233 236 205 7 176	3 22·0 5 23·5 3 21·7 3 20·3	13·0 12·6 12·1
JULY AUG. SEPT OCT NOV DEC	488 447 465 397	42	445 429 392 394 344 326	12 12 11 11	490 450 463 515 426 407	21 20 21 21	410 364 382 429 349 329	64 61 64 55	803 747 850 743	5 926 7 104 9 1419 5 87	0 1147 7 1173 9† 1222 3 1082	739 653 687 637	897 814 856 739	196 184 199 180	0 193 9 194 2 189	5 237·9 7 243·0 8 260·1	150	7 20-8 7 21-7 3 22-1 3 23-1	13.9 14.8 15.1 15.4
JAN														1			216	6 31.	7 16.9

* Including Luxemburg. § Excluding exceptionally large exports of gold and silver.

‡ Affected by change in method of recording statistics.
† Including bullion worth 408 Mu. Marks.

NOTES AND SOURCES.

IMPORTS AND EXPORTS. Weight— Values in Gold Marks—

COAL OUTPUT. SHIPPING.

RAILWAY GOODS RECEIPTS-UNEMPLOYMENT-

Wirtschaft und Statistik. Statistiches Reichsamt.

Excluding Saar-Wirtschaft und Statistik.

Statistiches Reichsamt.

Wirtschaft und Statistik.

Nos, receiving relief on 1st of month—Reichsarbeitsblatt. Trade Union percentages for end of month, but given as for following month to be comparable with previous column.

Germany]

had considerable success so far as lower prices of raw materials have assisted the process, but the Cartel prices have not fallen much, especially for coal and iron. In these cases the Cartels have only passed on the reduction in wage costs, and the adjustment of prices to world levels is consequently hindered. It is clear that international agreements in the key industries tend towards the raising of prices to the continuing process industries and to the consumer. Also the public utilities, Postal Service and Railways, have lowered their charges but little, and the same applies to municipal enterprises, gas, water and electricity. The financial position of the municipalities does not enable them to reduce the income they receive from these monopolies. Thus public undertakings which originally aimed at protecting the consumer from high prices are now putting a burden on him for revenue purposes and to an extent which would not have occurred the case of private enterprise.

In foreign trade, however, the position in Germany has improved compared with foreign countries. There has indeed been a considerable decline in value, but this has been greater in imports than in exports. The falling off in import values is mainly due to the fall in prices of raw materials and agricultural products, but the much smaller fall in export values is a sign that the heavy investments in German industry over the past few years have not been made in vain. Of course the compulsion to export on a country so heavily indebted abroad is so strong that the development is not surprising, and in fact export has to take place at prices which yield very little profit.

The fact that there was an export balance of net merchandise in 1930 shows that the world depression only partially accounts for the crisis in Germany. In fact it can be argued that Germany has profited from the crisis since she was able to satisfy her demand for raw materials and foodstuffs at much lower prices and thereby effected considerable savings.

The severe crisis of the past half-year is primarily the result of lack of confidence caused by political events, and is reflected in the outflow of capital and the movement of interest rates.

Developments during the year are illustrated by the following details:—

The industrial security index fell from 120 in January, 1930, to 85 at the year end, i.e., by 30%. Savings bank statistics show a very considerable drop. During September there was an increase of 54 Mn. marks in total deposits, compared with 129 Mn. in September, 1929.

The following table published by the Reichskreditgesellschaft, shows the monthly volume of bill business in 1930 compared with 1929:—

VOLUME OF BILLS DISCOUNTED (Mn. Marks).

	1929	1930		1929		1930
Jan	4552	 3787	July	4607		3485
Feb	4019	 3453	August	4073	•••	3090
March	4449	 3827	Sept	3807		3508
April	4656	 3490	Oct	4012	•••	3593
May	4392	 3471	Nov	3763		3184
June	4183	 3314	Dec	3891		

The following table shows the movements in the price indices during the year 1930:—

	JAN.	DEC.	% Fall
Sensitive commodities	111.5	81.7	27
Wholesale Index (General)	132.3	117.1	12
Agricultural products	121.8	109.4	10
Raw materials and semi-finished goods	128.3	109.3	15
Manufactured goods	156.0	142.4	9
Cost of living	151.6	141.6	7

It will be noted that the least fall took place in the cost of living, but increased rents due to higher property taxation are chiefly responsible for this.

The disparity in price movements of agricultural and manufactured goods widened during the year.

Stocks of coal in the Ruhr increased from month to month, rising from 2,683,000 tons in January to 9,837,000 tons in November.

The monthly averages of railway wagons loaded per working day were:—

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Jan. 126·2 April 134·1 July 127·7 Oct. 139·6
Feb. 124·5 May 137·6 Aug. 128·2 Nov. 138·0
March 131·4 June 133·1 Sept. 133·8 Dec. —
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These compare with averages for the third and fourth quarters of 1929 of 156,800 and 157,800 respectively.

The number of furnaces in blast was 95 in December, 1929, and 63 a year later.

Recipients of benefit from Unemployment insurance, including those receiving emergency relief, rose from 1,985,000 at the end of 1929 to 2,822,000 a year later, but this does not represent the full extent of unemployment. The complete total of those out of work rose from 2,850,000 at the end of 1929 to 4,357,000 at the end of 1930.

Proposals for spreading over work have not yet been put into effect. The trade unions will not accept short-time without a corresponding compensation in wagerates. They fear a depressing of the standard of living of the masses, while the employers consider that the profit-earning capacity of their businesses can only be increased by a considerable reduction in wages. They overlook the fact that consumers' purchasing power, already reduced because of unemployment, will

be still further decreased. Another objection to the spread-over is that overhead costs will be increased and an additional burden created.

Wage-rates, and therefore nominal wages, altered little during 1930, but real wages increased. Owing to the fall in the cost of living the real wages index for skilled workers rose from 112 in January to 118.9 at the end of November; there was a similar rise from 124.2 to 131.6 for unskilled labour. Against this the benefits of social insurance, especially for sickness, have been reduced. Members must now pay a part of doctors' fees and also make a small contribution in case of illness.

The quarterly averages of the weekly turnover per member of the co-operatives compared with 1929 were as follows (in Reichsmarks).

1st Qr. 2nd Qr. 3rd Qr. 4th Qr 1929 ... 9·19 ... 8·90 ... 8·99 ... 10·13 1930 ... 8·64 ... 8·55 ... 8·41 ... —

RECENT MOVEMENTS.

January 31st, 1931.

January has not brought the usual easier conditions in the money market. Presumably this is due to the outflow of foreign money, as with the low level of business activity it is otherwise unaccountable. The withdrawal of balances is evidenced by the movement of the exchanges, which were unfavourable, especially at the middle of the month, and in the third week fell to the lower gold point. The results of this were shown in the Reichsbank Report for mid-January, when reserves in foreign exchange amounted to 268 Mn. marks, scarcely half the figure of a month earlier. The gold reserve was unchanged and the bill and cheque portfolio amounted to 1,679 Mn. marks. The note circulation had fallen to 3,932 Mn. marks and the reserve ratio stood at $62\frac{3}{4}\%$. In the third week the ratio was 65%, although the exchange holding had fallen by a further 72 Mn. marks.

Day-to-day money in mid-January was $4\frac{1}{2}$ - $6\frac{1}{2}\%$, while private discount rate was $4\frac{5}{8}$, or $4\frac{3}{4}\%$ for longer dated paper. In the last week private discounts rose to $4\frac{7}{8}\%$, while discount on commercial paper was $5\frac{1}{4}\%$. Day-to-day money rose by $\frac{1}{4}$ to $\frac{1}{2}\%$ in the third week but fell slightly the week after. The Revenue of the Reich was 557 Mn. marks in December compared with 544 Mn. in December, 1929. Revenue from customs and excise was 26 Mn. greater, but property and trade taxes produced 15 Mn. less.

The Bourse, although firmer at first, is further depressed and new low levels have been reached. The opening of the negotiations at Geneva and continued political uncertainty at home were contributory causes. Also there were foreign offers of German securities which could only be absorbed at lower levels. Further there were apprehensions of lower dividends, especially in shipping, and there was the effect of a speech of the Finance

Minister, who described the so-called new Holders' Loan as a speculative security. It is true that a statement by the Minister followed within 24 hours, in which he said the Bourse had misunderstood him; but it was not to be expected that this explanation would have much influence on prices, especially of the loan in question. The fall in security values during the second half of 1930 was exceptionally severe. The general public held off and only appeared in the market as sellers. Turnover was so small that the smallest selling provoked heavy price falls.

During the Geneva Conference, prices improved and part of the losses in January

were recovered.

Commodity prices fell further in January, but the rate of fall decreased. The Ruhr Coal Syndicate has lowered its prices by 6%, and the Iron Cartel have at last reduced prices (bar iron by 9 marks per ton). There have been reductions of 2½ to 3 marks in certain supplementary prices, making the average fall about 7%. The Department of Trade has issued an ordinance whereby price agreements concerning proprietary goods shall be rendered invalid if the price to the consumer does not show a decrease of 10% since August 1. This will affect

branded foodstuffs, patent medicines, etc.

In foreign trade in December there was, including Reparations deliveries, a net merchandise export balance of 222 Mn. marks. Imports were reduced to 681 Mn. Exports of merchandise only (including Reparations) amounted to 903 Mn. marks. Although the decrease compared with the previous months is small, the values are much below those of December, 1929. Imports during 1930 were 3,000 Mn. marks less than in 1929, while exports were 1,500 Mn. less.

The report of the Steel Cartel for the last quarter shows a considerable reduction in turnover, both in home and foreign trade. Unfilled orders at the end of December were only 59% of the monthly

average of 1929-30.

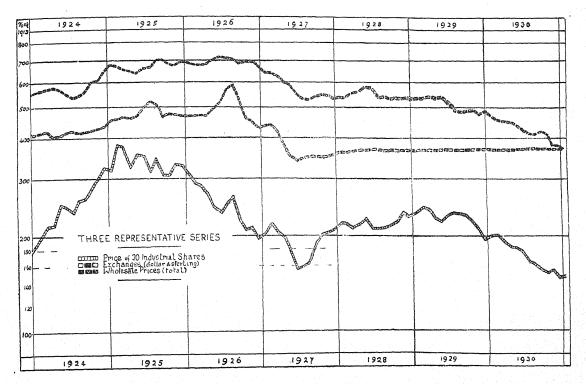
The number of unemployed rose to 4,765,000 on January 15th, that is an increase of over 400,000 in a fortnight. In the Ruhr mines an arbitration award reduced wages by 6% from January 1st. The employers asked for a cut of 8% and the Trade Unions originally offered 4%. Before the award was made there were several local strikes in the Ruhr, but they were short lived. Administrative salaries were also reduced. The process of wage and salary reductions is in full swing.

ANNUAL STATISTICS.

		1913	1924	1925	1926	1927	1928	1929	1930
Reichsbank Clearings	Mn. Mks. ,, ,, ,, ,, ,, ,, ,, No.	73634 6070 41587 720 — Average 5.88 9780	31197 3267 78503 274 6810 Since Apr. 10 6043	50927 4773 110000 1332 7301 Since Mar. 9 11184	56876 5235 114809 2775 6866 Since July 6 12274	97743 5820 136052 2158 8218 Since Oct. 7 5668	121002 6287 145812 2069 8964 7	126225 6432 150692 493 9001 Since Dec. 7 9846	119342 6261 141451 559 9112 Since Oct. 5 11340
PRODUCTION & TRADE— Total Imports †	Mn. Mks.	11206 2808 6280 1392	9262 2619 4539 1806	13207 4054 6199 2016	10580 3591 4927 1321	14152 4350 7150 2467	15012 4196 7249 2458	13829 3811 7203 2270	10808 2968 5499 1794
Total Exports † ‡ I Food Raw Materials and semi-Manufactures	Mn. Mks. '' ''	10199 1070 2274 6746	6548 421 903 5191	8831 510 1641 6628	9885 474 2363 6995	10273 419 2243 7550	11427 606 2277 8501	13689 716 2531 9456	11870 478 2145 8537
Lignite Output	In.M.Tons ,, ,, 000 M.Tons	141 87 32 10916 11466	118 124 24 7812 9835	133 140 27 10177 12193	145 140 26 9642 12341	153 149 32 13101 16291	151 167 34 11803 14502	163 175 38 13396 16241	143 146 32 9693 11536
Goods Traffic Passenger Traffic Shipping (average of arrivals and de-	Mn. Mks. ", ", 000 Tons	2256 1008 14376	3613 2256 1110 15846	4595 2313 1428 16812	4518 2807 1321	5011 3216 1372 19853	5140 3267 1447 23192	5345 3485 1425 20639	4214* 2627* 1251* 22387

ITALY.

Information communicated by Professor C. OTTOLENGHI, of the Royal University of Turin.



REVIEW OF 1930

N our report on 1929 published a year ago it was pointed out that in the first half of that year there were frequent changes from favourable to unfavourable aspects and vice versa; in the next quarter the unfavourable features prevailed, and it was pointed out that in the last quarter disturbance had occurred which could not be called a crisis, but an economic depression, which is essentially neither rapid nor short-lived like a crisis, but of long duration. This conclusion has been confirmed and, in subsequent monthly reports, the extension and prolongation of the depression first in one field and then in another has been repeatedly recorded. Now about a month after the close of 1930, from a diagnosis of that year, it would appear that the end of the most serious phase has been reached and examining also the January data, the phase of liquidation and recovery is in sight.

POPULATION.—The following vital statistics show some favourable features in 1930, greater natural increase, reduced mortality and increased marriage rates, and simultaneously a large rise in emigration.

회사님이 끝하다는 학생		1928	1929		1930
	(000's	1072	1040		1085
Births	per 1.000	26.2	25-2		26.0
Deaths	per 1,000	15.8	16.1		13.7
Natural increase	per 1,000	10.4	9.1		12.3
Marriages	000's	285	288	•••	297
Emigration	000's	91	111	•••	238

PRODUCTION. — Agricultural production, especially of grain and grapes, was adversely affected by the weather in 1930, and this reacted on the general position.

Poor	UCTION.	1927	1928	1929	1930
Wheat	Mn. Quintals		62.2	70.7	57.3
Silk Cocoons	Mn. Kg	50.7	52.9	53.3	52.7
Sugar beet	Mn. Q	20.1	28.6	29-2	30.2
Grapes	Mn. Q	57.9	75.0	63.4	50.01
Maize	Mn. Q	22.1	16.2	25-3	30.0~

TRADE.

	EXC	HANG		SHAF			BANK	ING.		gg.		************	ІМРО	RTS.			EX	PORT	3.	IM- PORTS	Ex.
		in Ita	ian	.			Bank of	Italy.		TCIE			VOLU	ME.			VC	LUME		VAL	
	Dollar,	Sterling.	Franc.	Price of 20 Industrials.	New Capital Invested.	Clearings.	Circulation.	Deposit & Current Accts.	Savings Bank Deposits.	BANKRUPTCIES IN ITALY.	Grain.	Coal.	Cotton.	Petrol and Benzine.	Coffee and Sugar.	Wool.	Silk.	Cotton Yarns and Tissues.	Citrus and other Fruit.	EXTER TRA exclu preci meta	DE ding ous als.
	%	%	%	%	Mn. lire.	%	%	%	%	No.	%	%	%	%	%	%	%	%	%	Mn. lire.	Mn, lire.
1913 Average	100	100	100	100		100	100	100	100	596†	100	100	100	100	100	100	100	100	100	303	209
1924 1st Qr. Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	443 435 439 443	390 388 399 418	105 129 120 122	199 237 251 302	104 64 75 50	(mid 1553 1550 1394 1502	1913) 755 776 812 845	(end 1172 1366 1290 1044	1913) 384 394 410 417	620 634 580 587	90 146 126 107	80 110 117 107	135 99 76 89	159 164 207 206	199 180 193 669	236 222 105 142	74 75 59 89	98 133 128 153	85 64 67 78	1415 1733 1445 1866	1052 1171 1033 1529
1925 lstQr.Av 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	. 465 476 505 478	457 476 504 476	128 125 124 100	359 348 327 326	93 105 80 51	1669 1656 2071 2155	825 861 931 927	1072 931 875 833	441 441 438 435	634 614 569 590	184 191 51 68	92 98 91 110	148 147 90 90	180 193 219 221	894 280 205 421	169 248 98 172	93 98 128 81	126 137 163 155	99 92 75 96	2189 2643 1791 2122	1336 1522 1473 1764
1926 1stQr. Av 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	498 563	475 497 561 447	91 82 79 81	299 254 249 208	170 101 70 50	2089 2479 2049 1600	876 851 876 878	818 890 1773 2283	435 439 443 441	650 631 633 699	111 167 92 103	115 143 100 93	162 102 109 99	204 211 286 233	214 172 294 180	211 383 172 116	68 84 78 86	112 104 126 124	93 77 101 108	2207 2541 1936 1934	1338 1484 1577 1823
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NOTES AND SOURCES.

FINANCE. Exchanges— Industrial Shares—

New Capital Issues— Bank of Italy— Other Data—

Average daily rate (Direzione generale del Tesoro).

Monthly settling prices for shares of 20 industrial companies on the Milan Bourse (Bolletino della Borsa di Milano).

Borsa di Milano).

Investments in new companies (Confederazione generale bancaria).

Deposits on current account and note circulation at end of month.

Savings bank deposits at end of month.

Clearings—total for month.

Bankruptcies (Boll. mensile dell' Islituto centrale di Statistica—Ufficia Statistica del Consiglio provinciale dell' Economia di Milano).

Quantities imported and exported per month (Statistica del Commercio speciale d'importazione d'esportazione Mro delle l'inanze).

Values per month (Boll. mensile dell' Islituto centrale).

EXTERNAL TRADE.

TRADE.

PRICES.

EMPLOYMENT.

ng a galance a wat an incoming distribution of the same	SHIPPI	NG.	RAIL- WAYS				CONTRACTOR OF THE SAME	1		OLES.		-				**CHINDAM		RETA	AIL.	UNEMI	LOY-
		dise the enoa Out-	Wt. of Goods Carried.	Coal.	fron, Copper, Steel	American Cotton Yarn.		Raw Silk Secial quality) 9/11 or 13/15 or near	Grain (Soft).	Beef	Wine	ICTS.	Sugar (home)	Waterials Waterials	ted Incolenghi	Total	General Index Bachi Base	istry of Labour ex for 21 Items of ar Consumption	Living in Work- Class Families	Manufacturing, o Mining, Bla'g. p.o.	endt nth Trades.
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JULY AUG. SEPT OCT. NOV. DEC.	538 553 511 551	90 71 8 90 10 10	9 61 1 60 9 62 1 55	3 3° 3 36 5 3° 51 36	2 38 7 38 0 3 8 7 38	5 51 5 50 5 51 4 50	7 59 2 57 7 54 4 50	5 459 0 494 5 471 9 428	458 465 485 480	625 637 625 625	481 490 490 490 427	419 388 376 376	52: 5 52: 6 52: 6 52:	L 444 L 443 L 431 L 42	504 1 510 9 514 6 491	485 488 490 471	666 666 664 657	558 553 547 546 551	525 528	96 99 103 120 140 194	202 217 229 297 333 409
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xx Three types selected from data supplied by the Milan Chamber of Commerce. # Mid 1913. \$ 1st half 1914.

* Latest prices are provisional. † Transferred from 1st of month to end. † Subsequent figures based on movements of new Bachi Index.

TRANSPORT. Shipping.

Railways.—

PRICES WHOLESALE, Ottolenghi.—

PRICES RETAIL.

UNEMPLOYMENT,

Monthly Total of Goods passing through Port of Genea. (Boll. del consorzio autonomo del Porto di Genova—Boll. statistico del comune di Genova).

Monthly Total of Merchandise sent on the State Railways. (Rivista delle comunicazioni ferroviarie del Ministero delle Comunicazioni).

Wholesale prices of selected commodities at end of month. (Boll. del consiglio provinciale dell' Economia di Milano, e Listino ufficiale della Borsa merci del consiglio provinciale dell' Economia di Genova.).

General index.

General index.

Prices of certain selected goods. (Boll. del lavoro del Ministero dell'Economia nazionale).

Prices of certain selected goods. (Boll. del lavoro del Ministero dell'Economia nazionale).

Index Nos. of the Cost of Living for working-class families (Boll. delle citta di Mi'ano e di Torino.).

Printer and of worth. Series transferred from beginning of month to end

National Insurance. Data for end of month. Series transferred from beginning of month to end of previous month, to correspond with other data. (Boll. mensile dell'Istituto centrale di

Italy]

The shortage of grain led to considerable imports in the later months; the reduction in cocoons and the increase in sugar beet are small and not of great importance; the increase in maize is interesting since it had acquired considerable importance in 1929 owing to the short harvest of grain.

Industrial output was affected in 1930 by the general depression.

Production.	1927	1928	1929	1930
Pig iron 000 tons	494	507	678	534
Steel	1524	1963	2142	1774
Sheets	1593	1849	1951	1531
Art. Silk Mn. Kg.		25.2	32.7	(27.5)*
	*11 months o	nly.		

The reduction in 1930 compared with 1929 was considerable, but not serious, for in most cases output was greater than in 1927. But in the cotton industry there was a grave diminution, not only on

fluctuated during the year, rose from 1176 in November to 1,419 Mn. in December, for capital is awaiting the favourable moment for investment. Discount rate was lowered from 7 to $6\frac{1}{2}\%$ on March 3rd, 6% on April 23rd, and $5\frac{1}{2}\%$ on May 19th.

The stock exchange experienced the most varied and serious repercussions; quotations have fallen almost continuously; activity was restricted except on occasions when heavy selling caused a collapse in many shares even those of good intrinsic value. The Bachi general index which covers 173 securities (base 1913) is given below. This may be compared with the index of 20 industrials on p. 16. The latter is more sensitive, because it is restricted to industrials and includes fewer securities.

					٠.	BACH	1 0	ENE	RAL	IND	EX	OF S	ECU	RITI	ES.	%	OF	1913.						
		Jan.		Feb.		Mar.		Apr.		May		June	•	July		Aug.		Sept.		Oct.		Nov.		Dec.
1929 1930	•••	141	•••	143	•••	139	•••	127	•	128	•••	130	•••	115	•••	112	•••	110	•••	128	•••	103	•••	125
1900	• • •	141	•••	129	•••	124	• • • •			RICE							•••	110	• • • • •	100	•••	100	•••	31
1929		90-0		00.0		01-0		00.5	P	80.6	Or	21.5	COTA	79.2	•	79.2		78.9		78.1		80.7		81.6
1929	•••	78.8		79.8		80.1		81.6		84.2		84.8		81.3		80 6		80.7		80.9		82.3		82.2
								INDE																
1930		103.6		103.9		104.2												105.0		105.2		105.1		105.1

account of the general situation, but also owing to a crisis in the industry itself.

Percentage of spindles active in cotton trade:

		1927	1928	1929		1930
1st. Qr.		90	 90	 91		89
2nd. Qr.		83	 92	92		83
3rd, Qr.		74	 87	 88	•••	74
4th. Qr.	•••	78	 91	 90		

The generation of electricity which is of such importance in Italy rose from 9,745 to 9,930 Mn. kwh. from 1929 to 1930, a favourable sign. Only in the last two months of the year was there a reduction on the previous year.

Finance. — The financial situation may be regarded as quite stable; there have been no great fluctuations in the exchanges during the year. The circulation of the Bank of Italy has been falling (end of 1929, 16,774 Mn., end of 1930, 15,680 Mn.), while total reserves fell from 10,341 to 9,624, i.e. an increase of 106 Mn. in the gold reserve and a fall of 834 Mn. in gold exchange. Current deposits which

The depression was at its depth in December. In January a new phase set in. Government securities were not affected by the strain of recent months for prices were higher than in the corresponding months of 1929.

The third series relates to the price of 14 important bonds, compiled by the statistical office of Milan. It confirms the theory that in time of crisis or depression, investment switches over to fixed interest securities.

New issues were at a very low level during 1930 both for the flotation of new companies and for increasing the capital of established concerns. Bankruptcies reached a maximum in July, after that month the number became more normal with the elimination of the weaker units.

In spite of the depression, savings bank deposits still have an upward tendency, though slight (from 11.8 Milliards in January to 12.2 in November) which is a favourable sign.

Prices.—The downward trend which was already visible in 1929 changed into a rapid decline as seen from the Bachi index and the index of selected commodities on p. 17. The former shows a fall of 67 points (on 1913 base), the latter, more sensitive, records a fall of 88 points between January and December, 1930. The following index of the purchasing power of the lira is issued by the Consiglio di Economia di Milano:—

1930. Jan. Feb. Mar. April May June 22·1 ... 22·5 ... 22·9 ... 23·3 ... 23·8 ... 24·2 July Aug. Sept. Oct. Nov. Dec. 24·9 ... 24·8 ... 25·1 ... 25·8 ... 26·4 ... 27·1

There were considerable differences in the extent of the fall from January to December; raw wool fell 40%, cotton yarn 35%, silk 40%. In agricultural produce the greatest fall was in grain prices, 25%; whereas this fall occurred in an essential commodity, non-essentials, such as beef and sugar fell only by 10% and 2½%.

Retail prices are still extremely slow in following the wholesale movement. Not until December was the fall of appreciable extent, according to figures published by the Central Institute of

Statistics.

EXTERNAL TRADE.—This was badly affected by the disturbed economic conditions, both by reduced demand and falling prices. The value of imports (including provisional data for December) was 17,351 Mn. lire, compared with 21,664 in 1929, and exports 12,118 instead of 15,235, resulting in a balance of 5,233 in place of 6,429 Mn. In each month the value of imports and of exports was less than in the corresponding month of 1929.

The following table gives the quantity and value of the chief imports and exports for the first eleven months of 1929 and 1930.

CHIEF IMPORTS AND EXPORTS. Quantity. 11 months. 1929 1930 Value (Mn. lire) 1929 1930 000 tons ... Grain 1697 1764 1655 1460 Maize Raw Cotton 000 Ql. ... Raw Wool 688 642 374 1351 2208 1881 1996 000's ... 466 421 659 000's ... 243 000 Ql. ... 873 ,, Tons... 10173 249 372 Oxen Machinery 888 9733 Coal 1419 Timber 1440 1492 Cotton Yarn 000 Ql. ... 222 335 1170 298 ,, Tissues ,, Silk Yarn ,, 808 934 493 507 379 Silk Yarn Artificial Silk Mn. Kg. ... 7...it 000 Ql. ... 54·5 17·6 59·6 1169 484 2891 3634 Motor Cars 000's

With the exception of grain, imports have diminished in quantity and value, whilst exports of raw silk and fruit have risen in quantity. December figures are not yet available, but on the basis of the traffic via the Port of Genoa there is likely to be an increase in exports.

Transport.—Traffic also was much affected by the 1930 depression; from July the weight of goods handled diminished until it was little over 4 Mn. tons in December, whilst in December, 1929, it was 5 Mn. Shipping was only slightly affected. Goods entering port were reduced from 24 Mn. tons in 1929 to 22 Mn., and goods leaving amounted to 13.4 Mn., or a rise of about 100,000 tons. The 1927 total inward and outward was 2 Mn. lower.

OTHER INDICATORS.—Unemployment increased from July to December, when it reached 642,000. At the end of 1929 there were 409,000. Strikes and lock-outs are a characteristic feature of capitalist organisation, but these have been averted in Italy by the application of the principle of class collaboration for the service of the state. Also the capitalist class is no longer dominant; a proof of this lies in the fact that the state, having lowered salaries and wages, indirectly forced the property owners to reduce rents by 10% from January 1st, 1931, in some cases from December, 1930, to maintain social equilibrium. This new conception must be taken into account in judging the Italian economic position.

RECENT DATA.

Jan. 1st, 1931.

Exchange rates were stationary in January, the average for the dollar being 19:10 and sterling 92:74 as in December. On the Bourse certain engineering shares started an upward movement, which spread to other classes. The index of industrials rose only I point owing to the depressing effect of certain cotton and wool shares, but there were several groups in which the improvement occurred, and after settlement day the rise was more definite and general. These changes coincided with an improvement in employment as a result of increased orders, so

that there should be a reduction in the unemployment figures for January.

With regard to wholesale prices coal rose in the first week of January on account of the English situation; at the end of the month it fell, but remained higher than in December. Copper and lead, which had been rising, closed lower than in Decem-

ber. Raw wool was still falling, but silk exhibited a definite upward movement. The index for materials fell from 399 to 322. There was a slight rise in grain, a slight fall in oil and wine, and a large fall in beef—9%—from the high level maintained up to the end of 1930. The food index fell from 402 to 390.

BELGIUM.

Information communicated by l'Institut des Sciences economiques, University of Louvain.

Jan. 31st, 1931.

three months, viewed as a whole, may be said to have been still in the recession phase, but with some signs of stabilisation, which we had observed in our last report to be more or less distant. The stability shown in certain statistics for a month or so is doubtless not in itself a sufficient sign that we have reached the full depression phase. But many data are already at a very low level and, in particular, prevailing money rates are such as occurred at the beginning of the depression stage in previous crises.

Examining the three markets, we find that speculation and money rates stiffened after a minimum in November. share index moved from 61 in October to 52 in November, 56 in December, 54 on Jan. 5th, and will probably be at about that level on Feb. 2nd. The rate on commercial paper after falling to 2.04% (November average) rose to $2\frac{7}{16}\%$ at the end of the year, and conforms closely to the official rate of 2\frac{1}{2} to 2\frac{3}{2}\%. Wholesale prices have not yet ceased their persistent downward course, but when the items are examined in detail considerable improvement since October is seen, for stable groups are reappearing. Thus in December, of 17 groups of products 7 were stable, 4 fell 1%, 3 fell 2% and only 3 more than 2%. Textiles remained heavy (4% fall).

Retail prices are also adjusting themselves to the fall rather more rapidly than previously; the seasonal rise was very slight and the fall recommenced in November instead of in January or February—it was 846 on January 15th, as compared with 875 in October and 895 in January, 1930. The cost of living index covers a fairly large fall in foodstuffs (over 12% in the year); but in the other groups changes were insignificant.

The capital market remains very quiet although new issues were rather more considerable than during the summer; the October - November average for cash issues was about 300 Mn. francs, whereas the average for the year 1929 was 1,000

Mn. per month.

In the metal industry the position has consolidated since August between 70% and 80% of the 1928 average, the maximum having been reached in October, 1929, at 110%. In December a fairly active expansion took place, but in view of the general crisis it would be premature to speak of definite recovery. Coal output is still high, but in November and December a slight fall replaced the usual seasonal rise; eliminating seasonal variation, the cyclical fall is about 10% for October—December. Stocks are still accumulating and have reached a record of 2,485,000 tons (more than a month's output).

To appreciate the unemployment figures it must be remembered that Belgium is suffering from cyclical unemployment only, the percentage of chronic unemployment being trifling. Therefore the numbers are not as serious as in other countries. The statistics show the regular

rise in cyclical unemployment together with a pronounced seasonal increase since November. In December the number of days lost by insured workers amounted to 10.9% of full time, 8.2% in November and 6.4% in October. Of 638,000 insured, 59,000 were totally unemployed and 105,000 intermittently. Nothing up to the present suggests an early check to the increase.

Traffic statistics for the railways and for the Port of Antwerp do not give a clear picture of the situation. They improved tor some months to a maximum in October. Transport by land is at present 10% lower than in 1928 and 14% below the 1929 average, after correcting for season. Shipping was in November 2% below the 1928 average and 5% below that of 1929.

External trade continues the downward movement which began in November, 1929. The decline in value is great

in all classes, but greatest in imports of raw materials which fell in November to 982 Mn. francs compared with 1,540 Mn., the 1929 average. The fall in prices plays an important part and quantities need to be examined. Compared with the 1929 average both the import and export totals in November, 1930, were 16 to 17% down.

On the whole, the impression already given is confirmed, that some very close analogies with previous crises give hopes that the bottom of the depression of the markets is very near, if it has not already been reached in the case of speculation and money. There will, no doubt, be diverse movements in industry in the coming months, the coal position in particular being difficult. Also as there is usually a lag of some months in unemployment after a set-back in production, this may persist for some time.

		SECU.			NATIC BAN		Rate.		PRI	œs.	IM	PORT		E	KPORT	s.	O	JTPU	r.		1
		Share Prices.	Debenture Prices.	New Capital Issues.	Current Deposits.	Note Issue.	Sterling Exchange Re	Private Discount Rate.	% Wholesale.	Cost of Living.*	Raw Materials.	Manufactures.	Total (with Food, &c.)	Raw Materials.	Manufactures.	Total (with Food, &c)	Coal Output.	Coal Stocks.	Pig-iron Output.	Railway Wagons Loaded.	Unemployment, Days lost per 1,000 workers per week,
		% of 19	Jan. 28	Mn. fr.	Mn. fr.	00 Mn.fr	Fr. to £	%	Apr. 1914	% of 1921	М	n. frai	ics	M	n, franc	S.	0,000	tons.	tons.	000	No.
		1	z	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	1.8	19	20
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l	1929 JAN FEB MAR APRIL MAY JUNE	108 117 114 113 105 102	108 109 111 111 111 111	2301 1042 1158 1143 1548 852	579 608 447 467 341 535	120 120 120 123 124 124	174·50 174·61 174·76 174·75 174·76 174·58	4·37 4·37 4·37 4·60 4·90 5·20	867 865 869 962 851 848	217 217 215 214 213 213	1237 1445 1567 1573 1723 1609	662 709 862 818 869 827	2427 2682 3052 2991 3231 3043	822 966 936 913 865 1052	1139 1245 1555 1690 1405 2371	2175 2397 2746 2832 2464 3664	235 220 230 223 221 220	98 77 61 49 41 35	340 324 323 336 337 342	496 431 508 518 512 515	252 389 120 44 33 46
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	JAN FEB MAR APRIL MAY JUNE	76 77 67 74 76 72	113 113 114 115 115 116	913 279 193 469 338 316	865 441 383 641 680 686	139 138 145 145 145 145 146	174.66 174.48 174.41 174.19 174.10 174.09	4·31 4·25 4·21 4·00 3·07 2·92	808 791 774 777 774 750	226 235 229 224 221 221	1429 1290 1376 1379 1368 1206	881 850 907 899 887 745	2943 2712 2899 2856 2874 2496	645 542 886 774 739 688	1384 1136 1651 1597 1401 1143	2211 1814 2766 2545 2295 2015	239 237 224 226 229 205	50 72 110 133 146 159	332 337 331 313 290 265	520 476 503 485 484 443	223 245 197 250 227 196
	JULY AUG SEPT OCT NOV DEC 1931	67 63 62 61 52 56	117 117 118 119 118 119	490 293 161 292 478 350	415 580 556 478 603 635	149 153 154 156 157 158	174·04 174·15 174·27 174·22 174·15 173·85	2·94 2·62 2·60 2·48 2·25 2·63	739 729 712 705 693	225 226 227 227 227 227 222	1196 1030 1109 1142 982 1062	784 716 695 735 621 675	2554 2334 2388 2529 2141 2361	734 613 690 692 615 550	1350 1175 1352 1354 1224 1227	2282 1944 2227 2222 2060 1960	212 222 220 230 238 228 221	172 185 198 222 239 248	252 239 251 241 248 262	459 443 464 507 466 462	
1	JAN	54	120		1230	163	174-15	2.75					and base		<u> </u>		<u> </u>	1	<u> </u>	<u> </u>	<u> </u>

Dates of Series—Cols. 1, 2, 1st of month; 4, 5, 4th—10th; 6, 7. Average; 8, Average second half of month; 9, 15th; 16, for 25 working days; 18, 30-day month; 19, calendar month.

* Ministry of Labour index for 3rd category budgets.

NETHERLANDS.

Information communicated by the Netherlands Central Bureau of Statistics, The Hague.

REVIEW OF THE YEAR 1930.

January 26, 1931. HE economic situation of the Netherlands naturally depends to a large extent on the world situation, though the size of the fluctuations and their phase may differ. Consequently, no change for the better can be expected in this country as long as signs of early improvement are almost entirely lacking in the world's principal centres. In particular, the fall of prices here is only the reflection of a corresponding movement abroad, and the uninterrupted downward trend of these shows that a new equilibrium between supply and demand, i.e., between stocks and productive capacity on the one side and consumptive power on the other, has not yet been reached, but its achievement is an essential pre-

requisite of a revival.

To measure the industrial slump in this country, consequent on this state of affairs, consumption (or, where data are lacking, imports) of raw materials in 1930 may be compared with that of 1929. The weighted average of imports of the principal materials was 9.3% lower than in 1929. Consumption of iron (i.e. home production + imports - exports) went down by 17.6%, imports of cotton by 9.5%, of materials for the oil and grease industries by 22.3%. Other imports, however, have increased—wool by 11.6%, hides by 10%. If, however, the full drop in 1930 is to be estimated, December figures for the two successive years provide a better basis for comparison, in many cases. Thus, iron consumption shows a decrease of 28.7%, imports of cotton 24.7%, of materials for oil and grease industries 14.8%, and the increase in wool is almost obliterated.

This situation is reflected by the unemployment figures. While unemployment was still moderate during the earlier half of 1930, it rose sharply during

the latter half, and attained in December, as preliminary figures show, a definitely higher level than in December, 1923. Latest available data (last week in December) report 14.7% workpeople wholly, and 4.0% partly unemployed.

Whereas wages were, in the earlier part of 1930, still mostly on the increase, during the last quarter these began to show a tendency to decline. In fact, practically no increases have been reported of late, whereas decreases have been multiplied.

During 1930 the drop in share quotations, as shown by our index number, showed the very high figure of 35%. The total drop from the peak of the upward movement which had prevailed from the middle of 1924 till February, 1929, has been 47.5%. There are no signs that this fall has yet come to an end. The forthcoming annual company reports will show how far these low quotations (65% of the average for 1921-5) may be due to undervaluation.

1930 was a year of abnormally low money rates. After September, 1929, the strain on the money market rapidly decreased, bringing down open market discount rate until it was below 2% in June, where it remained with few exceptions. After a slight contraction about the turn of the year, the money market regained its unusual ease and private discount rates frequently dropped again as low as 1½%. The Netherlands Bank lowered its discount rate from 3 to 2½% on January 24th.

Capital issues were rather abundant throughout the year, except during the third quarter, bonds by far prevailing. During the first half of 1930 the majority of these issues were foreign, but during the latter half very few foreign loans were placed on our market.

	STOCE	S & S	HAR	ES.		NK OF HERL		MON	EY.		PF	RICES,	TRAL	E, OUT	PUT,	EMPLO	OYMEN	T.	
	Stock Prices.	Yield on bonds*.	New Capital issues.	Yield of tax on stock exchange dealings.	Note circulation.	Clearings.	Current accounts.	Bank rate.	Open market discount.	Wholesale prices.	Cost of living.**	Total imports.	Total exports.	Index No. of imported Materials (net).	Exports of finished products.	Goods handled in Port of Rotterdam,	Goods carried by rail (chief stations).	Output of Coal.	Unemployment.\$
	1921/25 =100	%	Mn Gld	0000 Gld.		Mn. Gl	ī.	%	%		Oct.23- Sep. 24 =100	Mn.	Gld.	1922/25 =100	Mn. Gld.	Mn. tons.	000 tons	000 tons	%
1913 verage					316		4-8	4.65		100								156	~~~
1924 t Qr.Av. id ,, id ,,	98 85 86 91	6·20 6·35 5·93 5·80	19 54 39 12	39 22 29 28	1001 984 963 951	2344 2380 2165 2436	23·9 41·9 47·6 37·8	4·88 5·00 5·00 4·90	4·79 4·00 2·65 4·38	156 153 153 161	83·8 81·1 82·5 84·6	183 199 187 219	125 128 145 156	101 100 101 108	41 41 46 51	2·35 3·98 3·42 4·53	359 342 332 353	472 473 501 515	14.5 6.5 8.5
1925 t Qr.Av. d ,, h ,,	93 95 98 104	5·27 4·95 4·76 4·73	20 22 33 25	47 37 46 63	902 890 877 881	2489 2695 2675 2557	56·1 44·6 26·6 36·8	4·08 4·00 4·00 3·51	2·37 3·25 3·35	158 152 155 154	83·9 83·8 83·6 82·9	204 292 204 220	141 139 171 151	123 118 116 128	49 51 55 53	3·96 4·19 4·87 4·26	303 283 354 408	526 517 603 638	10. 6. 6. 9.
t Qr.Av	. 104 100 102 103	4·67 4·66 4·61 4·67	31 29 41 66	48 33 45 39	819	2762 2871	59.0 34.6 49.2 30.1	3·50 3·50 3·50 3·50	2·67 2·89 2·78 3·15	149 143 140 146	95·7 96·8 93·0 95·0	205 202 203 203	132 132 160 160	123 126 121 129	51 49 53 49	4·29 5·10 6·57 6·63	426 409 538 485	643 685 769 787	10 ⁻ 5 ⁻ 8 ⁻
t Qr.Av	. 108 110	4·74 4·74	41 39	59 46	793 799		26·6 33·6	3·50 3·50	3·32 3·47	145 146	94·2 94·8	201 208	144 155	13 7 135	52 55	6·16 5·93	390 389	742 730	10 5
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ULY SEPT OCT NOV	116 114 116	4·64 4·63 4·64 4·64 4·65	30 5 12	4 3 3 8 8 6	3 79 6 80 3 82 3 82	4 3254 4 295 5 3576 5 3329	43·3 7 33·6 3 38·9 9 32·6	4·50 4·50 4·50 4·50		144 145 146 148		234 222	161 188 190 180 170 165	156 158 158 161 158 152	64:0 68:2 69:8 70:7 68:5 70:8	5·99 5·85 5·72 5·72	487 453 525 467	961 892	4420000
1929 JAN FEB MAR APR MAY JUNE	124 123 119 118	4·6 4·6 4·7 4·8 4·8	5 9 3 2 3 1 2 4	0 6 5 6 4 5 7 6	9 78 4 77 60 78 77 80 89 80 87 78	5 357 3 383 3 384 9 362	5 28.6 5 11.5 3 15.9 1 15.	6 4.50 5 4.73 9 5.50 7 5.50	4·38 4·63 5·34 5·38	5 146 L 147 I 144 S 142	}95·4 - }95·7	216 234	152 124 175 169 175 165	140 140 150 171	68·1 55·1 77·1 74·9 78·8	3·86 2·76 5·37 3 7·66	5 586 5 595 7 479 5 457	829 924 938 948	1 1
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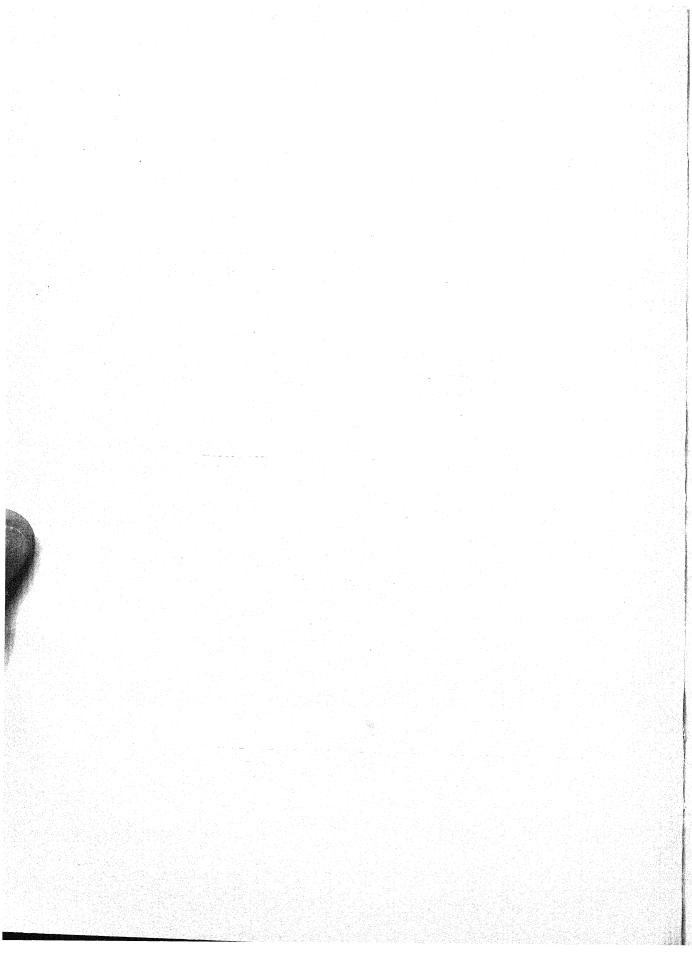
A NEW INDEX OF PRICES OF SECURITIES

A. L. BOWLEY, G. L. SCHWARTZ and K. C. SMITH

February, 1931

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A NEW INDEX OF PRICES OF SECURITIES

By A. L. BOWLEY, G. L. SCHWARTZ, and K. C. SMITH

I.—GENERAL CONSIDERATIONS

THE index-numbers of ordinary industrial securities hitherto published in the Bulletin are based on the information that was available in 1923, at the initiation of the London and Cambridge Economic Service, and dealt with companies that had been of importance in The relative importance assigned to 1913. different industries was decided principally by the results of the Census of Production of 1907, and only twenty separate securities have been included. Experience has proved that, though the dates of increase and decrease have been correctly shown the numbers have not of late measured the magnitudes of the fluctuations with sufficient precision, since they were dominated by the very variable fortunes of a few companies.

Since the other index-numbers given in the Bulletin have been converted from the base year 1913 to the base year 1924, the opportunity may be taken to reconsider the basis and content of the securities index. It is certainly doubtful whether on any definition the movement for the whole period 1913–30 can be correctly measured, and we are not attempting to carry the revised index-number back to any year before 1924. Prior to that date the existing index-number must stand, and it can be linked on to the new index as shown in Table IX, p. 14.

It may be said at once that the so-called "speculative securities index" hitherto published has not been found to be of great value, and it is decided to drop it. In its place a sensitive short period number will be inserted, relating only to companies operating principally within the United Kingdom.

Before describing the new numbers we will consider à priori the problem of measuring the general changes of the prices of securities from

various aspects.

The formation of a securities index-number presents similar problems to those in connection with commodity price index-numbers. We have to decide:

(1) The general purpose of the number; (2) the group which it is to represent; (3) the method of choosing samples; (4) weighting; (5) the nature of the items included; (6) the appropriate formula (geometric, arithmetic, etc.); (7) the base year; (8) readjustment of the basis and weights from time to time; (9)

accuracy of the number.

(r) The purposes of commodity price numbers are to measure the general movement of prices of goods, often with reference to the supply of and use of currency, and to permit the elimination of price variations in order to measure other variations. The possible uses of security index-numbers are more numerous—they may be intended to guide the investor, or rather, one or other class of investors, or to measure the general appreciation or depreciation of classes of securities, or to indicate the activity or dullness of the stock-market, or for purposes of diagnosis or prognosis of the general industrial situation.

The Economic Service is concerned primarily with the last-named purpose. There are several index-numbers in existence, some of recent construction, to serve the needs of investors. and if we attempted any further work in this direction, it would be necessary to give not one, but several numbers, since these needs are so various. The intention in the construction of the numbers now published in the Bulletin has been to indicate the fluctuations of the market's expectation of future profits, as reflected in the movements of prices of ordinary shares, and to study the relationship of these fluctuations to the movements of commodity prices and other indicators of the industrial situation. For this purpose it is not necessary to have exact measurements of any defined quantity: we only require that the turning points of our index shall be rightly dated for our purpose, that major fluctuations shall appear as of more importance than minor, and that in quite short periods we shall be able to distinguish between fortuitous variations (due to the accidents of sampling, etc.) and those which are tendencious. Similar qualities are needed in commodity price indexnumbers, but there we have more frequent need to use the numbers for exact measurement.

(2) For commodity prices we decide whether the field is of wholesale or retail prices, is general or special to food or some other group, or is limited to goods imported or exported, and other variants might be named. For security prices there are the fields of fixed

interest securities (with the more special group Government Securities), and of ordinary shares (with a choice of various classes of preference shares). It is not proposed to make any radical change in our fixed securities index but only to modify the list of entries, and this we need not discuss at present. For ordinary shares we can choose companies operating principally in the United Kingdom, or include or make a separate index for companies with headquarters here and operating principally abroad, or indeed extend to wholly foreign companies. Since we are concerned mainly with the position of British industry, we need an index confined to the first group, whether other indexes are calculated or not. A further line of division is between sound established companies, and new or more speculative ventures; but, in fact, the technical difficulties of constructing an index of speculation are very great, and probably the movement of stock prices does not provide the best way of measuring or describing activity of this kind.

It has been decided to exclude banks and railways, since the markets for their shares have special characteristics, and the inclusion of the latter, unless they were given a fictitiously low weight, would dominate the index too much,

owing to the great capital involved.

(3) In constructing a wholesale price indexnumber the choice of commodities is limited to goods for which a market-price can be regularly ascertained, and the grade of which is definable and not subject to frequent change; when all such important commodities are included, the number is not great. Similarly, for an index of *securities* which covers several years, the choice is restricted to companies or firms of importance, of good standing, and with stable financial organisation. The number of separate industrial groups which employ capital on a great scale is not very large, but the number of large firms is considerable, and the task of verifying that their shares have not changed in value owing to bonuses or reconstruction is arduous; so that in practice it is convenient to restrict the number of separate quotations. The list for the existing indexnumber contains only twenty; it has been found to be practicable to extend it to more than ninety. Even with this increased number it appears that much depends on the importance assigned to particular companies, and this consideration leads us to the question of weighting.

(4) With index-numbers of prices of commodities it has for some purposes been found sufficient to take an unweighted average, but it has more generally been considered to be logical to weight the quotations according to some

definite measure of importance. Many existing numbers are weighted, systematically or roughly, by increasing the number of quotations for an important commodity and giving only one quotation for an unimportant one. A method akin to this has in fact been used in our existing index of industrial shares.

For the construction of a securities indexnumber experience shows that a definite and logical system of weighting is necessary. In many important groups of statistics the choice of weights has little influence on the resulting numbers, but in the case under consideration the dispersion of the movements of prices is very great, some securities appreciating more than ten-fold and others depreciating to nil approximately, while large blocks of nominal capital move together. This is quite a different situation from statistics of wages, and the abnormalities are more pronounced than in statistics of prices. In both these cases there is more definitely a general movement, in relation to which the changes in particular items may be, within certain limits, regarded as variations; but with securities the relationship to a change in the demand for and supply of capital, or to any other fundamental movement, is obscure, and we cannot depend on any theoretical averaging away of variations.

Various systems of weighting have been proposed, both at home and abroad; of these, weighting by the number of shares traded, or in proportion to the yield of dividends, are

impracticable in this country.

It is convenient to arrange the system of weights in two steps: (a) the importance of industrial groups, (b) the importance of particular companies within these groups.

Under (a) we may assign importance from the Census of Production of 1924 in proportion to Net Output, as is done in our index-number of Production, or by whole capital employed if we could estimate it, or by number of persons employed. But none of these is directly proportional to the ideal weights required. The variation of capital per head of employees is very great, e.g., between building and distilling or railways. The net output, i.e., the selling value of the products less expense of materials, is also not proportional to capital. We cannot, in fact, estimate at all precisely the whole capital employed in industry in this country, and even if we could, we should need further to distinguish bonds, debentures, other fixed interest shares and preference shares from ordinary shares, since these groups move in different directions in times of change. Moreover, a great amount of capital is employed by individuals and by private companies, and the values of these are not quoted on the Stock

Exchange.

The ideal method would seem to be to ascertain the value, at the average price in the base year, of the aggregate of the ordinary shares of every company whose shares are currently purchasable*; and, by grouping them under the chief industrial headings, obtain an indication of the relative importance of each group. But adequate material for such an estimate is not readily available, and the labour involved is prohibitive. In view of this it was decided to assign weights to the groups from the Census of Production net output, as being the most relevant of available statistics to the purpose in hand, and to form the groups as described in the next paragraphs.

(b) Within each industrial group companies were selected which are of good standing, have stable financial organisation, for which current quotations are available, which operate wholly or principally within the United Kingdom, and whose ordinary share capital is considerable—

generally over £200,000.

Within each group the companies are weighted according to the market value of the aggregate of their ordinary shares in the base year, and thus an index-number for the group is obtained. These index-numbers are weighted by the net output of the group to obtain the final index. The details are shown in Table XI, p. 16, below.

The method is a compromise, but it is believed that it gives due importance alike to the fortunes of particular companies, and to the general changes of the capital values of

industries.

(5) In an index-number of commodity prices or of wages, after the item is chosen we have still to secure that we have adequate data for the market price of an unchanged grade of the commodity, or for the wages or earnings in an unchanged occupation. So in the securities index we have to make sure that a real price is currently quoted, and to make allowance for all changes in the nature of the security, for rights, bonuses, amalgamations, etc. The work of obtaining comparable series needs considerable knowledge and care, and in this task we continue to enjoy the benefit of Mr. Kitchin's advice.

(6) In commodity price index-numbers certain theoretical advantages are put forward for the geometric mean, which do not apply to the conception of a security index, and its use can be discussed with reference to convenience and accuracy only.

The geometric mean is more convenient, because every quotation has to be expressed as a ratio, and, if this is done by logarithms, a single addition gives the mean, and the separate ratios need not be calculated. The saving of time, however, is not considerable if one is using a fixed base. On the other hand, for "link relatives," which we discuss below, the geometric mean is so much simpler in consecutive calculations that it should be used, unless there are strong reasons against it. A further general argument for it is that when it becomes necessary to adjust a quotation or to replace it by another, the use of the geometric mean facilitates the process.

The great objection to the use of the geometric mean for a long-period index is that if a single quotation falls to zero, the mean falls to zero; and, without going to this extreme, the influence of a fall is increased, while that of an increase is diminished, relatively to the

arithmetic mean.

Here are ten quotations, selected from a list of 20 securities, as the five highest and the five lowest in 1930: February 1924 taken as 100.

Five higher	Five lowest.				
Security.	1929 July.	1930 March.	1929 July.	1930 March.	Security.
a b c d e	266 207 182 194 166	230 188 167 163 162	66 69 64 62 27	59 49 39 37 14	$egin{array}{cccc} \dots & v & & & \\ \dots & w & & & \\ \dots & x & & & \\ \dots & y & & & \\ \dots & z & & & \end{array}$
Arithmetic Mean Geometric Mean Excluding (a) or (z)	203·0 200·4	182·0 180·3	57·6 54·7	39·6 35·8	_
Arithmetic Mean Geometric Mean	187·2 186·6	170·0 169·6	65·2 65·2	46·0 45·0	

The ten securities together.	1929.	1930.
All. Arithmetic Mean Geometric Mean Excluding a only A. M. G. M. Excluding a and z A. M. G. M. Excluding z only A. M. G. M. G. M.	130·3 104·7 115·4 94·3 126·2 110·4 141·8 121·6	110-8 80-3 97-6 71-4 108-0 87-6 121-6 97-5

It can be seen that the inclusion or exclusion of security z lowers or raises the geometric mean considerably. It has also a considerable effect on the difference between the arithmetic and the geometric means. The influence of security a is of a different character.

The *median*, which has been proposed for commodity price index-numbers is too uncertain with a small number of entries for any

fine measurements.

^{*} This is preferable to taking the nominal values, or the paid-up capital.

The relative advantages of these means are, however, different when we use the method of "link relatives," and concentrate attention on the movement from one date to the next, without reference to any base year.

Suppose the prices of three securities a, b, c

are as follows, at dates A, B, C,

	Percentages of prices at A. A. B. C.					
a	100	150	100			
b	100	50	100			
c	100	75	100			
Arithmetic Mean	100	91·7	100			
Geometric Mean	100	82·6	100			

Now start with the price of each at 100 at B.

	В.	C.
a b	100 100 100	66 3 200 133 1
Arithmetic Mean	100 100	133 ½ 121

The link method applied to the arithmetic mean would give from A to C

$$100 \times \frac{91.7}{100} \times \frac{133\frac{1}{3}}{100} = 122.5.$$

This result is absurd as showing the movement from A to C. It is true that it gives the result to an investor who invested £100 in each security at A, sold out for £275 at B, and invested £91.7 in each stock at B and sold out at C, but it has no other meaning.

The geometric mean on the other hand

would give from A to C

$$100 \times \frac{82.6}{100} \times \frac{121}{100} = 100,$$

a result in accordance with the facts.

Because of the risk of such a paradox as is here shown by the arithmetic mean, the geometric mean is to be recommended when successive changes are observed over short periods.

(7) The choice of the base year, at which each security is equated to 100, is quite indifferent for comparison between any two years if the geometric mean is used, as has been

illustrated by the case just given.

For a longer period, when an arithmetic average is employed, the base is connected with the weighting, and by suitable adjustment of the weights any year can be chosen. In other index-numbers in the Bulletin, 1924 is taken as the base year, and it would be confusing to make any variation from this. The straight-

forward way is to adjust the weights to the position in 1924, and put each security at 100 at that date.

(8) In discussions on commodity price index-numbers a good deal of attention is given to the questions whether dependence on a base year long past does not give a false tendency to the numbers, and whether (e.g.) a pre-war system of weighting is not misleading, and various methods are suggested for meeting these difficulties. In the case of security prices some of these problems do not arise, but others are accentuated. The main danger lies in the changing fortunes and relative importance of the particular stocks selected, and a secondary risk is in change in the relative importance of industries as a whole. The practical solution is to revise the choice every few years, and to weld the new series to the old in some opportunist manner. For short-run link relatives the change can be made more frequently and with less difficulty.

(9) It is very difficult to assign on a basis of probability any measure of precision to an index-number, or other average, constructed as is the former or the new index of securities. In the assignment of weights to the industrial groups, on which in this case much depends, there is a non-measurable element of arbitrariness. We can only try the results of various hypotheses, and expect that the true result is between the extremes and near to that arising

from the hypothesis we think best.

The index chosen, unless the whole basis is erroneous, is more accurate than that obtainable by a purely random unweighted average, and it is therefore worth while to consider the latter, as supplying an upper limit to possible want of precision.

The average of n things selected at random from a group whose coefficient of variation * is v, has for its coefficient of variation $v \div \sqrt{n}$

$$n = 20 \quad v \div \sqrt{n} = .224 \text{ of } v = 3.8 \text{ if } v = 17 \uparrow \\ 30 \quad .183 \quad , \quad 3.2 \quad , \quad \\ 40 \quad .158 \quad , \quad 2.7 \quad , \quad \\ 60 \quad .129 \quad , \quad 2.2 \quad , \quad \\ 80 \quad .112 \quad , \quad 1.9 \quad , \quad \\ 100 \quad .100 \quad , \quad 1.7 \quad , \quad \\ ,$$

The gain in accuracy as the number of entries is increased is slow, and very little advantage comes, e.g., from adding another 20 entries when we already have 80.

The computation of the precision by this method is tedious, and a fair approximation is obtained by the help of the geometric mean, which has often been already calculated for other purposes.

^{*} The coefficient of variation is the standard deviation expressed as a percentage of the arithmetic mean of the group.

[†] This is the value found in some examples.

Notes

I. Mr. Wesley Mitchell made a very close examination of the movements of 40 American Transportation Stocks from 1890 to 1915, in *The Journal of Political Economy*, July 1916. He experimented with geometric and arithmetic means and the median, applied to actual and relative movements, and with weights according to amount of stock, to earnings, and to number of shares traded.

He found that, as compared with commodity price index-numbers, the choice of the sample was of less importance, but that the method of weighting and of averaging was of

more importance, in the stock index.

By a criterion of a minimum error in the average, he recommended a geometric mean of ratios of change over short periods.

Over long periods the geometric mean was still the most representative, but the longer the period the less accurate the results and the fewer the possible stocks. Accordingly he recommended the breaking up of a long period into sections of 10 or 20 years, and stringing the results together.

He found that a chain or link (non-geometric) index introduced a cumulative error.

2. The Statist index-number of commodity prices, when 1928 is compared with 1924 (=100) is 87, with a coefficient of variation 18.5. The number of separate entries is 45, but they are partly correlated, and the coefficient of variation for the average is about 3.

The corresponding coefficient for the average of the 20 stocks in our former index from 1913

to 1924 is as high as 15.

II.—THE STATISTICAL BEHAVIOUR OF SECURITY PRICES

The reasons for the choice of methods and detailed working of the revised index-number are best appreciated by an analysis of the actual course of, and relationship between, individual stock prices.

In the following table the twenty securities which form our existing index-number are arranged in the order at which they stood when their price in December 1924 is expressed

as a percentage of that in 1913. These percentages are given in the first numerical column, and range from 472 (Imperial Tobacco) to 30 (Vickers). Their arithmetic average is 172, which is the number given in our Bulletin for that date. Evidently a considerable modification would be made if more or less weight were given to the three steel firms at the bottom of the list. The geometric average is

TABLE I.

		ber 1924		Lin	k Relatives	• .		
	compared with 1913.		Percentage at end of year, Jan. 1 = 100.					Cumula
	Direct.	Reciprocal	1925.	1926.	1927.	1928.	1929.	tive. 1924–29.
Tobacco Bleachers Nobels † Metro-Electric Oil and Cake Cory Fine Cotton Guinness Guest Keen Gen. Electric Cunard Cement Coats Brunner Mond † Gas, Light and Coke Cammell Laird Harrods United Steel Armstrong Vickers	472 350 341 269 239 234 219 205 180 132 104 101 92 89 62 43 36 30	21 29 29 37 42 43 46 49 56 76 81 89 96 91 109 112 161 232 278 333	118 118 114 111 112 91 89 151 96 139 90 118 98 88 98 88 98 106 61 79 71	113 85 141 96 94 122 84 77 112 105 106 92 94 102 95 124 118 29 106	86 91 143 114 117 113 115 85 96 109 144 113 145 109 81 123 62 107 132	129 92 121 155 107 109 87 87 102 130 127 103 121 98 107 105 72 90 108	95 71 71 71 83 99 109 63 109 94 107 75 93 100 71 95 41 99 130* 63 67	141 60 197 156 130 149 47 93 99 221 131 159 107 124 91 27 167 42 14 72
Total Arithmetic Average Reciprocal Geometric mean	3,433 172 — 133	2,018 101 99 —	2,028 101·4 — 99·1	1,997 99·8 — 96·2	2,209 110-5 108-1	2,177 108·8 107·2	1,735 86·7 84·1	2,227 111·4 92·9
Standard Deviation of Group 67% of Average Standard Deviation of Average 15% of Average			A.M. 101·4 G.M. 99·1	Ou 101·2 95·4	mulative Li 111.8 103.1	nk Relative 121.6 110.5	s. 105·5 92·9	

^{*} Nominal.

[†] Imperial Chemicals from July 1927.

133, and is greatly affected by the lowest three readings; if these were excluded, the geometric mean would be raised to 167 and the arithmetic mean to 196. If the twenty are regarded as a random sample, the standard error of the arithmetic mean is as high as 17 per cent. of itself.

If we work backward, as in the next column, "reciprocal," expressing the price in 1913 as a percentage of that in 1924, we find the average 101; that is, on this basis, the average in 1913 was I per cent. higher than in 1924, or (again taking the reciprocal) 1924 was at 99, I per cent. lower than 1913, instead of 72 per cent. higher, as in the direct method. Evidently very much has depended on the right choice of the sample; the average is not independent of the formula used.

The columns headed Link Relatives show the subsequent movements of the stocks. Thus Imperial Tobacco rose 18 per cent. during 1925, and a further 13 per cent. (on 118) in 1926; it then fell 14 per cent., rose 29 per cent. and fell 5 per cent. In all during the five years it rose 41 per cent.* Nobel's † rose rapidly for four years and fell 29 per cent. in the fifth.

Armstrong's collapsed in 1926.

The arithmetic averages of these columns show the gain or loss to an investor each year who invested equal sums in each stock at the beginning of the year and sold at the end. In 1925 he would have gained 1.4 per cent., in 1926 lost 0.2 per cent. and so on till in 1929 he lost 13.3 per cent. His cumulative gain or loss is shown at the bottom of the table (A. M.); at the end of the five years he would have gained 5.5 percent. (Less, of course, the expenses of the transactions and apart from interest.)

If, on the other hand, he had invested equal sums in each in December 1924, and not sold or bought, at the end of 1929 he would have gained 11.4 per cent. as shown in the last

column.

If, again, he had invested equal sums in each in 1913, he would have gained 72 per cent. by December 1924, while at the end of 1929 (the investments still being undisturbed) the Bulletin index-number, 207, shows that his holdings appreciated 20 per cent. during the five years.

Quite different views are thus obtained of the movement during the five years according

to the hypothesis made.

The geometric mean, on the other hand, gives the same result for the five years in whatever way the start is made. The increase from 1913 to 1924 is 33 per cent. The subsequent years (see line "Geometric Mean") show decreases of 0.9 and 3.8 per cent., increases of 8.1 and 7.2 per cent and a decrease in 1929 of 15.9 per cent. These cumulate to a decrease of 7.1 per cent. (giving the index 92.9) in the five years, and combined with the increase prior to 1924 lead to +23.6 per cent. over the sixteen years 1913-29. Over these sixteen years equal undisturbed investments show an increase of 107 per cent.

The conclusion must be that since so much depends on the method adopted, with only these 20 securities the index-number is reliable

only for short periods.

In considering the reconstitution of the index-number, our first experiment was to revise the list of securities, increase their number to 28 so as to include Courtaulds and other firms of recent importance, and two food distributive companies, and meanwhile to rectify the relative importance given to the different industries. The result was to reduce the increase shown from the average for 1924 to July 1929 from 45 per cent., as given by the existing index, to $27\frac{1}{2}$ per cent. By a number of tests, it was found that this index was more satisfactory than the former; but it was evident that the basis was not wide enough to give reliable measurements over periods of stress or for any prolonged time, and it was decided to make a more comprehensive survey.

The actual constitution of the new index is explained in the next section. Here we examine the relationship of the movements of the 84 securities (increased gradually to 92) which

are included.

The following Table shows to what extent the prices move in the same direction year by year. During the period of increase of the index-number, 53 stocks rose from 1924 to July 1925, and in the successive periods of twelve months, 54, 51 and 66. Between July 1928 and July 1929 57 fell, and again 59 fell between July and October 1929. The greatest uniformity was, as might be expected, from October 1929 to July 1930, when 81 out of 92 fell. Over the whole period, however, from 1924 to July 1930 a rise is recorded for 51 securities and a fall for 33.

^{*} $100 \times 1.18 \times 1.13 \times .86 \times 1.29 \times .95 = 141$.

[†] Imperial Chemicals from July 1927.

TABLE II.

DIRECTION OF CHANGES, 1924 TO JULY 1930.

		No. of Securities whose Price Rose or Fell in Certain Periods.							
		To July 1925.	To July 1926.	To July 1927.	To July 1928.	To July 1929.	To October 1929.	To July 1930.	
From 1924 Average $\begin{Bmatrix} \text{Ris} \\ \text{Fal} \end{Bmatrix}$		53 30 *	49 35	59 25	65 19	56 28	56 28	51 33	
From July 1925 ${ m Ris} { m Fal}$			54 30	58 25 *	61 23	56 27 *	56 28	48 34 †	
From July 1926 $\begin{cases} Ris \\ Fal \end{cases}$			-	51 31 †	60 23 *	55 28 *	56 27 *	43 39 †	
From July 1927 $\begin{cases} \text{Ris} \\ \text{Fal} \end{cases}$				To a second	66 21	52 34 *	47 38 †	34 53	
From July 1928 ${Ris \atop Fa}$						31 57 †	32 58	14 76	
From July 1929 ${ m Ri} \atop { m Fa}$							29 59 ‡	13 79	
From October 1929 $\left\{egin{matrix} ext{Ri} ext{Fa} ext{} ight.$								9 81 †	
General Index No	1924 Av. 100	July 1925. 103	July 1926. 113	July 1927. 122	July 1928. 139	July 1929. 138	Oct. 1929. 135	July 1930. 112	

^{*} Also 1 unchanged. † 2 unchanged. ‡ 4 unchanged.

TABLE III.

AVERAGES OF THE NEW SERIES OF PRICE RELATIVES.

	1924. Quarterly Average	July 1925.	July 1926.	July 1927.	July 1928.	July 1929.	July 1930.
Arithmetic Mean Geometric Mean Median Weighted Arithmetic Mean (New Index) Old Index *	100 100 100 100 100	114·9 109·2 104 103 107	138-6 118-9 107 113 113	161-5 130-5 120 122 126	203·2 146·6 144 139 151	209·8 141·7 154 138 145	161·8 110·6 131 112 124
Standard Deviation of Prices		43 38 4·6	113 82 12·3	126 78 13·4	214 105 22·4	320 153 33·2	226 136 23·4

^{*} The existing index-number based on 20 prices altered proportionately to give 100 in 1924.

The absence of uniformity in the movements of the different securities thus indicated is measured by the figures in Table II above. The standard deviation of the 84 (or 92) prices, expressed as a percentage of their arithmetic average, always with the quarterly average for the year 1924 expressed as 100, increased

during the time of rising prices till it reached the very high figure 153 in July 1929; and then fell; in other words, the dispersion of the prices increased more than proportionately when prices were rising, and decreased when they were falling. Some of the extreme cases are as follows:

July 1929.	1924 = 100.	July 1930.	July 1929 = 100
Amalgamated Cotton Trust John Brown (Engineering) Borax Platt Bros.	32.9	Columbia Graphophones Calico Printers British Celanese Gramophone	38·0 44·3
Gramophore Carreras Tcbacco Leyland Motors Columbia Graphophones	988-0	Allsopp & Bass Humber Guinness Leyland Motors	115·0 122·4

 $[\]dagger$ Viz. the standard deviation of prices, 43, etc., above, divided by the square root of the number.

This dispersion could be foretold from, and to some extent measured by, the difference in the movements of the arithmetic and geometric means and the medians.

If we regarded these series merely as chance and equally important samples from the whole group of security prices, the standard deviation of the resulting average is as high as 33 per cent. in 1929.

Under these circumstances a rational system of weighting is necessary. It is interesting to

observe that the number shown by the new index for July 1930—viz. 112—is quite near that which would have been obtained from our original 20 securities, each put at 100 in 1924, and is even nearer to that which the trial set of 28 securities, named above, gives for the same date

The direction of the changes, as contrasted with the amount, is the same year by year as measured by all the averages except that in 1926 some methods suggest a slight fall.

A SENSITIVE INDEX. LINK RELATIVES

For observation of changes over short periods, unweighted means are the most sensitive, and the geometric mean leads to consistent results whatever pair of dates is chosen for comparison, and is readily computed when the data are once arranged for the purpose.

Some of the possible ways of computing link relatives give the series in Table IV.

The first column shows the geometric average movement of the 92 securities included from the middle of one month to the middle of the next. The method of calculation can be indicated by a highly simplified case. Suppose four securities had respectively fallen 10 and risen 20, 8 and 21 per cent., so that their prices relative to 100 were 90, 120, 108 and 121. The product of these is the square of $108 \times 10 \times 11$, that is, the fourth power of $108 \cdot 995$, which is therefore the geometric mean of the four. The entry in the table would be +9 per cent. Actually, of course, the computation is performed by the use of logarithms.

The movements shown by the arithmetic means and geometric means when both are weighted or both unweighted are fairly close, and in most months there is little difference between the weighted and unweighted G.M. If reference is made to the detailed Table on pp. 16–17, it is seen that some companies have considerableweight and they may remain stationary while the others move, so that what is really a general movement may be damped down or cancelled. Hence the unweighted mean is more sensitive to the general feeling of the Stock Exchange.

TABLE IV.

	N. Per	Level compared with Jan. 1929.			
	Geometr	ic Mean.	Arithmet	tie Mean.	Geometric Mean.
7	Un- weighted.	*Weighted.	Un- weighted.	Weighted.	Un- weighted.
1929. Jan. Feb. March April May June July Aug. Sept. Oct. Nov. Dec.	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	- 4·1 + 0·2 + 0·6 + 3·0 - 2·6 - 3·5 + 2·4 + 2·7 - 8·2 - 17·9 + 4·0		100 99·0 95·5 95·5 95·8 93·3 89·3 89·3 89·1 87·2 77·4 77·7
1930. Jan. Feb. March April May June July Aug. Sept. Oct. Nov. Dec.	+ 0.3 - 2.6 + 6.5 - 7.0 + 7.2 + 9.9 + 5.5	+ 1.8 - 6.0 - 3.6 + 6.1 - 4.6 - 7.4 + 1.1 - 9.1 + 5.3 - 10.4 + 2.9 - 6.0	- 1.0 - 2.6 - 1.5 + 8.9 - 2.0 - 8.9 + 6.3 - 10.6 + 3.0 - 7.5	+ 2·8 - 4·0 - 3·0 + 4·1 - 5·9 + 0·0 - 5·8 + 4·6 - 6·4 + 1·7 - 6·0	78·0 74·4 72·4 77·1 74·4 69·6 69·6 69·6 69·6 60·7 64·5 60·8

^{*} Weighted by groups only.

[†] Weighted individually and by groups.

A CUMULATIVE INVESTMENT INDEX

The ordinary security index measures the change in the value of selected securities over a period in the same way that a commodity price index shows the change in cost of a selected budget of goods. But it is useful to measure not only the changed value of securities all bought at one date in the past, but also the effect of price changes on successive investments.

Thus we might suppose that in carrying out a systematic policy of saving, or accumulating a reserve, equal sums were invested every January and July for a succession of years, and, given index-numbers of the usual type, ask what was their aggregate value at a later date. The results of such investments might be set out as follows:—

Period.	Investment.	Index-number of Security Price.	Value at beginning of 5th Period.
1 2 3 4	£1,000 1,000 1,000 1,000	÷100 ÷105 ÷115 ÷120	
Total	4,000		4,196
Aver	age per 100		104-9

In this example values rise in three periods and fall in the fourth. Part of the investment has risen and part fallen, and in all there is an appreciation of 4.9 per cent. on the cost of investments.

It is easy to form a table of this sort, starting at any one date, and to arrange it so that it can readily be used for any other initial date. The method is to replace the divisors in the above example by reciprocal multipliers: thus in

the second line 1000 \times .95 \times 1.10 instead of 1000 \div 105 \times 110.

The formulæ can be exhibited thus:—

Let fA be invested at the beginning of each of n successive periods, when the index-numbers are a_0 a_1 . . . a_s . . . a_{n-1} , while a_n is the number at the end of the nth period, and s stands for any intermediate period.

The successive A's are worth at the end of the time

$$A \times a_n \div a_0$$
, $A \times a_n \div a_1$, ... $A \times a_n \div a_{n-1}$.

The whole investment, $A \times n$, is worth

$$A \times a_n \times \left(\frac{\underline{\mathtt{I}}}{a_0} + \frac{\underline{\mathtt{I}}}{a_1} + \ldots + \frac{\underline{\mathtt{I}}}{a_s} + \ldots + \frac{\underline{\mathtt{I}}}{a_{n-1}}\right).$$

Per £100 invested, the result is

$$\frac{\mathtt{IOO}}{n} \times a_n \times \left(\frac{\mathtt{I}}{a_0} + \ldots + \frac{\mathtt{I}}{a_{n-1}}\right)$$

which may be written

$$\frac{a_n}{n} \sum_{s=0}^{s=n-1} \left(\frac{\text{IOO}}{a_s} \right).$$

The last figure of the following Table exhibits the result when equal sums are invested half yearly at eleven successive dates from January 1925 to January 1930 and are valued in July 1930—viz. 910 per cent. of the total amount invested. The series in the column headed "Cumulative Index" shows the change in this ratio of market value to purchase price as the number of investments and the number of intervals increase from 1 to 11. The last value of t is n.

CUMULATIVE INDEX OF ORDINARY SHARES.

	Usual * Index a_{t} .	Period	Reciprocals $100 \div a_t.$	Sum of Reciprocals = Cumulative Index
1925 Jan. July 1926 Jan. July 1927 Jan. July 1927 Jan. July 1928 Jan. July 1929 Jan. July 1929 Jan. July 1930 Jan. July	110 103 116 113 120 122 137 139 149 138 124	0 1 2 3 4 5 6 7 8 9 10	9091 9709 8621 8850 8333 8197 7299 71194 6711 7246 8065	$\begin{array}{cccccccccccccccccccccccccccccccccccc$

^{*} The new index described on pp. 12-13 below.

Thus the value per £100 invested up to date was £93.6 in July 1925 (£100 having fallen 6.4 per cent.), £109.0 in January 1926 (the first £50 having risen in the ratio 110: 116 and the second in the ratio 103:116), and so on till after eleven investments, including January 1930, the average value per £100 invested was £91.0 in July 1930, and the whole value if each investment was £100 became £91.0 × 11 = £1,001.

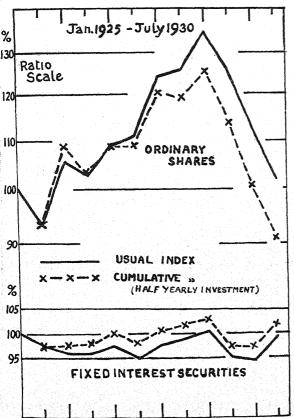
The same general method applied to Fixed

Interest securities yields:-

FIXED INTEREST SECURITIES.

	Usual Index	Cumulative Index*
1925. Jan. July 1926. Jan. July 1927. Jan. July 1928. Jan. July 1929. Jan. July 1929. Jan. July 1930. Jan. July 1930. Jan. July	100 97·5 96·2 96·1 97·5 95·5 98·0 98·8 100·5 95·4 94·9	97-5 97-8 98-1 100-0 97-9 100-8 101-5 103-1 97-5 97-3 101-8

^{*} First investment January 1925.



The accompanying diagram shows how the cumulative index damps down the trend of the usual index, but emphasises the fluctuations.

To obtain the index in July 1930 starting from a different date, say January 1927, we have only to subtract the sum of the first four reciprocals (3.6271) from the sum of all (8.9316) and multiply the remainder (5.3045) by 112 ÷7, thus getting 84.9.

This process applied to the above and to the fixed interest security indices below gives the

following results:-

CUMULATIVE INDEX.

	In Jul	y 1930.	In Janua	ıry 1929.
	Ordinary Shares.	Fixed Int. Securities.	Ordinary Shares.	Fixed Int. Securities.
Starting at Jan. 1925 July ", Jan. 1926 July ", Jan. 1927 July ", Jan. 1928 July ", Jan. 1929 July ", Jan. 1930	91·0 89·8 87·8 86·7 84·9 83·5 81·8 81·8 82·2 85·7 90·3	101-8 102-1 102-2 102-1 101-9 102-0 101-6 101-8 102-3 104-1 104-4	125-3 123-9 110-4 118-8 115-6 113-2 107-9 107-2	103·1 103·4 103·5 103·4 103·1 103·2 102·1 101·7

The relation of the changes between ordinary and Fixed Interest securities treated cumulatively depends both on the starting and the finishing dates.

The preceding tables relate to half-yearly investments. The next one results from more detailed calculations, and shows the value in each month of 1930 of a series of monthly investments, beginning in January of each of the years 1925 to 1930.

TABLE V.
CUMULATIVE INDEX NUMBERS

showing market values of a series of monthly investments in industrials as percentage of total purchase price.

Date of		Dat	e of Initia	l Investm	Investment.					
Valuation of Total Holding.	January 1925.	January 1926.	January 1927.	January 1928.	January 1929.	January 1930.				
1930. Jan Feb March April May June	100 96 93 97 96 91	96 93 90 94 93 88	93 90 87 90 90 85	89 86 84 87 87 82	90 87 86 89 89 89	96 96 100 99 94				
July Aug Sept Oct Nov Dec	91 86 89 84 86 81	88 84 87 82 84 79	85 81 84 79 81 77	83 79 83 78 80 76	86 82 86 81 83 79	95 90 95 90 92 88				

III.—THE NEW INDEX-NUMBER

The new index-number of security prices is based on the quotation of ordinary shares * of 92 industrial companies operating wholly or principally in the United Kingdom, being shares dealt in on the London market and quoted regularly in the press. The basis of the selection was industrial importance, good standing and stable financial organisation. In fact, nearly all companies of really considerable financial importance for which quotations are readily obtainable have been included. In the separate industrial groups, however, the capital of the companies included does not form a constant percentage of the total capital employed in those groups, owing to the existence of private enterprises or large numbers of small firms, or to the fact that shares relating to certain industries are more commonly dealt in on other markets than the London.

After examination of the movements of prices it was decided to exclude Banks and Railways, on the ground that the course followed by their shares was out of the common run, and, in addition, that any reasonable allowance for the great amount of capital in railways gave them too much preponderance. The list of companies is given in Table XI, p. 16.

* Deferred Ordinary shares in a few cases marked on the Table, p. 16.

The companies are arranged in fourteen main groups. To the groups as aggregates, weights are assigned in proportion to the net output of the industries included in each, as estimated in the Census of Production of 1924.† Within each group weights are assigned to the companies in proportion to the total value of the particular shares at the average of the four mid-quarterly market quotations in 1924. These weights are shown in Table XI, p. 16. The movements for the principal groups are shown graphically on p. 18.

Series are computed month by month for each company, the average of the quarterly values in 1924 being equated to 100. For eleven companies for which quotations are not available as early as 1924, the quotation first available was equated to the then index-number of the group to which the company was assigned, and the weights within the group were re-distributed so as to keep the total group-weight unchanged.

When the price of a security is affected by bonus issues, or rights whose effect is as great as 5 per cent., the serial number is proportionately reduced.

The weights having been assigned and the † Special consideration was given to Distribution, etc.

TABLE VI.

EFFECTS OF SYSTEMS OF WEIGHTS.

Seventy-two securities (preliminary selection).

Weights.	All.	Excluding Three Co.'s * only.	Excluding Railways * only.	Excluding Railways and Three Co.'s.*	Excluding Banks Railways and Three Co.'s.*
	Octobe	r 1929, when 1924	is taken as 100	for each security	7•
Ordinary Capital Total Share Capital Census of Production Unweighted	127 111 153 173	111 98 133 141	155 164 177 179	132 136 151 146	136
	Maı	ch 1930, when 19	24 is taken as 10	0 for each securi	ty.
Ordinary Capital Total Share Capital Census of Production Unweighted	110 97 132 150	101 89 115 123	132 138 151 155	118 121 130 146	121
	March 1	930, when Octob	er 1929 is taken	as 100 for each s	ecurity.
Ordinary Capital Total Share Capital Census of Production Unweighted	86·7 87·8 85·8 86·7	90·6 91·4 86·6 86·8	85-2 84-5 84-8 86-5	89-6 89-2 85-8 86-5	88·5 — —

	1924.	1929.	1930.
	Average	October	March
Railways	100	64	61
	100	103	102
Leyland Motors	100	1,586	1,643
Celanese	100	312	164
	100	743	478

series rectified, the weighted arithmetic average is taken, the average for 1924 being 100.

Before adopting the method just described, some experiments in weighting were made when the details for 72 companies, including Railways and Banks had been tabulated.

The systems of weights tested for the

industrial groups were:—

	Ordinary Capital. (Nominal.)	Total Share Capital. (Nominal.)	Census of Production. Net Output.
Iron, Steel, Engineering, Coal Motor Cars Electrical Equipment Textiles and Clothing Food Production and Distribution Paper Timber and Building Public Utility Chemicals Shipping Stores Miscellaneous Banks Railways Total	9 19 12 1 2 6 9 3 1 6 9 31	6 1 1 6 9 1 2 2 2 2 5 4 4 5 3 100	12 10 4 7 10 3 2 1 3 6 20 100

A study of Table VI shows that by different systems of weights and modifications of the list of shares it is possible to get a range of index-numbers from 98 (all companies but three, total share capital weights) to 179 (unweighted, excluding railways) for October, 1929. When railways, with their enormous total share capital, and three companies whose changes were exceptional, are excluded, the range is reduced to 132 to 151. Our former index-number gave 140, and our new index-number, which is weighted on a combination of ordinary capital and the Census of Production, gives 134 at this date.

Over the shorter period, October 1929 to March 1930, the various systems give a much smaller dispersion, but the fall still varies from $15\frac{1}{2}$ per cent. (total share capital, excluding railways) to 8.6 per cent. (total share capital, excluding three companies only). Our new and old index-numbers make the fall 14 per

cent. and 12 per cent. respectively.

It is evident that great care has been necessary to choose the best system of weighting to measure the advance in security prices from 1924 to 1929.

The detail and results of the new compilation are shown in tables and diagrams on pp.

14–18.

The index for Fixed Interest securities has been modified by replacing 3½ per cent. L.C.C., Met. Water Board B and 3 per cent. Local Loans by 3 per cent. L.C.C., 4 per cent. L.M.S.

Debentures and $3\frac{1}{2}$ per cent. Conversion Loan; 4 per cent. Funding Loan is retained. The differences are insignificant in most months.

TABLE VII.

NEW INDEX OF FIXED INTEREST STOCKS.

(Mid-monthly figures.) 1924 average as 100.

/ ·	viid-monthly	y ngures.	1924 ave	rage as 100	
	Index of Price.	Index of Yield.		Index of Price.	Index of Yield.
1925 Jan. Feb. March April May June July Aug. Sept. Oct. Nov. Dec.	100-6 100-7 99-6 99-5 99-4 96-7 98-1 99-6 96-2 95-9 96-8 96-2	99·4 99·3 100·4 100·5 100·6 103·4 101·9 100·4 104·2 104·5 103·4 103·9	1928 Jan. Feb. March April May June July Aug. Sept. Oct. Nov. Dec.	98-6 98-1 99-2 100-9 100-3 100-0 99-4 98-7 98-5 98-2 98-7 100-1	101·5 100·9 100·9 99·1 99·7 100·0 100·7 101·4 101·5 101·8 101·4 99·9
1926 Jan. Feb. March April May June July Aug. Sept. Oct. Nov. Dec.	96·8 97·2 96·4 96·0 97·2 97·7 96·4 95·2 95·3 95·9	103·2 102·9 103·8 104·1 102·9 102·4 103·4 103·8 104·6 105·1 104·8 104·3	1929 Jan. Feb. March April May June July Aug. Sept. Oct. Nov. Dec.	101·1 98·2 97·1 97·2 97·3 96·0 94·2 93·5 93·9 94·1 94·5	98-9 101-9 102-9 102-3 102-9 103-5 104-0 106-2 107-0 106-5 106-3 105-8
1927 Jan. Feb. March April May June July Aug. Sept. Oct. Nov. Dec.	98·1 96·7 96·3 96·2 97·1 96·5 96·1 96·8 96·9 97·2 96·9 97·8	101·9 102·8 103·9 103·8 103·1 103·6 104·1 103·3 103·2 102·8 103·2	1930 Jan. Feb. March April May June July Aug. Sept. Oct. Nov. Dec.	95·5 96·1 98·1 100·3 98·4 97·7 99·2 99·7 101·3 103·9 103·3	104-7 104-2 102-0 99-7 101-7 102-4 100-4 100-9 100-4 98-7 96-3

TABLE VIII.

THE NEW INDEX OF SECURITY PRICES.

ORDINARY SHARES. 1924=100.

(Mid-monthly figures.)

	1925.	1926.	1927.	1928.	1929.	1930,
Jan. Feb. March April May June	110	116	120	137	149	124
	108	114	119	136	148	119
	108	113	119	141	143	116
	107	111	119	143	143	120
	106	113	122	148	144	119
	106	115	122	143	144	112
July	103	113	122	139	138	112
	103	114	124	140	142	106
	109	116	126	143	144	110
	112	116	131	146	135	103
	116	117	131	143	121	105
	113	116	131	139	121	99
Average Averages for old index *	109 111	115 114	124 124	142 146	139 145	112 121

^{*} Reduced proportionately to make the mid-quarterly average for 1924 equal to 100.

TABLE IX. $\label{eq:table_index_numbers} \mbox{ Index-numbers of security prices (ordinary shares). } 1913 = 100.$ (Mid-monthly figures.)

	Old Index.								ex, with 19	24 equate	d to 163.	
	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.	1929.	1930.
Jan. Feb. March April May June	154 156 155 155 166 165	214 205 199 189 175 162	125 115 119 123 121 121	112 118 119 130 133 133	155 156 160 165 167 169	155 164 158 159 158 156	179 176 176 176 174 173	189 186 184 181 184 187	196 194 194 194 199 199	223 222 230 233 241 233	243 241 233 233 235 230	202 194 189 196 194 183
July Aug. Sept. Oct. Nov. Dec.	165 173 170 183 187 194	160 152 155 156 138 129	117 118 113 103 105 111	136 138 136 139 144 150	161 162 166 165 164 156	155 158 158 160 172 172	168 176 178 183 189 184	184 186 189 189 191 191	199 202 205 214 214 214	227 228 233 238 233 227	225 232 235 220 197 197	183 173 179 168 171 161
Average	169	170	116	132	162	160	177	187	202	231	227	183

DIAGRAM A. COMPARISON OF THE NEW AND OLD INDEX NUMBERS OF INDUSTRIAL ORDINARY SHARES.

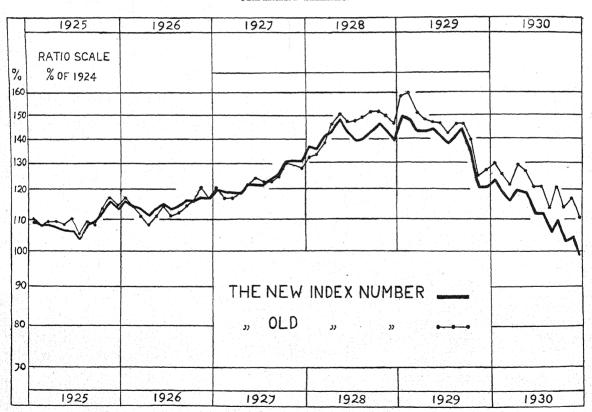


TABLE X.

NEW INDEX OF INDUSTRIAL SHARE PRICES.

(Mid-monthly figures.) Per cent. of 1924 average.

	Steel Joal.	Cars.	rical ment.	s and ing.	rodn. tribn.	1 4	.000	pers.	ing als.	nd ity.	als,	r ies.	etc.	ng,	. r.
	Iron, Steel and Coal.	Motor Cars.	Electrical Equipment.	Textiles and Clothing.	Food-Prodn. and Distribn.	Drink.	Tobacco.	Newspapers	Building Materials.	Gas and Electricity.	Chemicals, etc.	Other Industries.	Drapery, Stores, etc.	Shipping, ctc.	TOTAL INDEX.
Weights.	238	32	16	168	86	38	11	16	76	43	27	27	168	54	1000
1925. Jan Feb March April May June	104 99 94 90 85 86	122 124 120 123 127 128	117 114 120 123 128 127	112 109 113 112 112 111	105 105 105 106 103 105	120 130 131 141 151 149	119 123 125 130 129 138	118 118 118 121 119 115	109 108 109 110 110 116	106 105 103 99 96 97	109 109 109 109 104 102	113 118 119 130 135 141	112 111 114 113 113 109	105 104 96 98 94 92	110 108 108 107 106 106
July Aug Sept Oct Nov Dec	80 86 82 85 89 84	129 138 152 157 164 163	120 131 137 138 151 143	106 112 111 123 124 118	106 108 110 110 110 109	149 155 151 163 174 167	135 142 139 143 144 147	107 110 115 111 124 120	110 116 122 125 130 126	99 94 93 94 98 99	100 100 100 101 102 99	150 162 181 182 184 194	109 112 114 113 117 118	87 92 90 89 91 87	103 108 109 112 116 113
1926. Jan Feb March April May June	90 86 83 80 83 82	175 170 173 172 176 183	149 157 156 148 158 164	118 112 111 108 112 110	110 109 106 100 102 103	167 161 158 162 166 167	145 145 141 140 143 164	117 121 122 126 124 129	132 127 135 135 137 140	101 97 94 93 93 97	102 98 97 92 101 97	195 184 184 184 197 211	123 128 128 125 125 123 126	90 86 84 83 83 83	116 114 113 111 113 115
July Aug Sept Oct Nov Dec	82 86 90 90 96 90	182 184 195 197 204 214	165 164 174 168 162 174	105 106 105 103 104 102	100 98 99 97 96 97	163 153 145 146 144 140	162 161 164 167 167 169	121 128 138 134 139 164	141 141 146 139 136 130	97 96 97 100 98 99	95 102 100 98 101 99	215 206 210 207 213 212	126 126 127 131 131 134	88 87 94 92 94 91	113 114 116 116 117 116
1927. Jan Feb March April May June	94 92 91 92 93 89	217 219 224 229 235 239	175 177 175 172 171 173	104 100 104 101 104 104	97 96 97 97 100 98	143 137 137 137 137 141 131	169 159 155 153 149 146	175 186 186 185 181 190	133 128 136 134 138 136	101 102 102 103 104 104	105 104 106 107 116 127	212 212 223 238 259 266	140 143 138 137 139 137	95 98 94 96 103 105	120 119 119 119 119 122 122
July Aug Sept Oct Nov Dec	87 89 92 93 94 90	252 255 266 292 294 291	169 172 182 190 189 189	103 104 106 114 113 115	99 101 103 105 108 106	139 135 130 132 134 131	150 151 155 147 145 149	200 217 225 237 236 260	140 143 147 155 148 143	104 103 104 106 106 106	134 134 138 149 146 149	284 291 279 306 307 314	137 136 139 144 143 144	102 103 101 98 101 101	122 124 126 131 131 131
1928. Jan Feb March April May June	97 95 96 100 102 97	316 296 335 338 349 332	190 199 198 203 210 209	116 114 126 129 133 126	109 108 109 112 121 116	141 143 139 141 144 144	149 154 157 168 172 170	269 279 274 294 299 274	153 151 163 161 165 168	108 114 116 120 123 121	151 143 143 164 180 175	346 348 388 376 396 363	150 150 146 142 149 146	98 101 99 108 111 107	137 136 141 143 148 143
July Aug Sept Oct Nov Dec	93 96 98	338 344 356 366 347 326	207 203 207 213 213 209	120 120 120 119 116 113	117 121 120 125 121 124	138 142 142 145 139 135	171 172 176 186 189 191	238 264 245 245 239 218	165 158 169 176 175 176	123 121 125 125 123 123	175 181 190 187 180 176	348 371 387 408 414 398	144 142 144 144 143 142	103 105 108 109 110 109	139 140 143 146 143 139
1929. Jan Feb March April May June	95 93 93 93	356 349 347 367 380 362	244 261 242 251 241 242	122 116 110 113 114 112	120 125 118 120 128 129	142 139 131 133 141 139	188 190 175 177 182 179	264 243 256 262 249 236	182 192 177 175 179 178	128 130 127 127 131 134	191 197 190 177 166 165	448 414 430 413 407 376	148 153 146 144 143 143	116 115 114 108 106 104	149 148 143 143 144 144
July Aug Sept Oct Nov Dec	. 88 . 90 . 85 . 77	342 372 388 367 317 325	243 257 254 241 213 219	107 111 106 103 96 95	129 139 146 130 109 105	134 136 139 137 130 134	172 178 176 178 165 175	208 221 220 207 178 179	181 182 181 173 159 153	132 129 130 126 118 118	154 160 157 147 128 128	382 372 376 321 247 244	142 148 150 143 128 129	98 103 101 94 87 93	138 142 144 135 121 121
1930. Jan Feb March April May June	. 77 . 75 . 77 . 73	363 333 324 366 358 337	221 218 218 240 235 226	96 90 87 93 86 82	105 99 95 105 100 91	140 137 138 143 149 141	175 165 165 174 173 165	199 164 164 165 151 163	158 154 150 160 158 152	121 122 118 125 126 124	131 123 123 126 120 109	252	132 133 125 129 129 119	88	119
July Aug Sept Oct Nov Dec	. 69 . 72 . 67	347 320 344 312 316 287	225 217 218 208 215 207	82 77 81 76 82 75	92 85 88 83 84 78	148 144 142 137 143 140	171 167 168 153 160 152	141 129 139 114 124 119	155 151 156 147 144 130		100	171 189 160 172	107 110 107 110	77 78 78 78 78 78 78 78 78 78 78 78 78 7	106 110 103 105

TABLE XI.
LIST OF SECURITIES IN NEW INDEX.

Ordinary Shares unless otherwise stated.		Weight assigned.	Quotation as % of 1924 Average.	
Ordinary planted actions obtained beautiful	1924. £Mn.		July 1929	July 1930
I. Iron, Steel, Coal, etc.: 1. Amalgamated Anthracites 2. Babcock and Wilcox 3. British Aluminium 4. Consett Iron 5. Dorman Long 6. Guest Keen 7. John Brown & Co. 8. Platt Bros. 9. Powell Duffryn Coal 10. South Durham Steel 11. Stewarts & Lloyds (Dfd.) 12. Vickers 13. William Cory & Son	2·0 11·5 1·3 3·9 4·1 11·8 2·0 3·0 5·8 1·0 9·1 6·9 6·7	7 40 5 13 14 41 7 10 20 23 31 24 23	42 132 191 46 68 99 31 36 47 78 59 79 135	22 116 160 30 32 95 21 17 25 38 52 67 120
II. Motor Cars: 1. Austin Motors 2. Dennis Bros. 3. Humber, Ltd. 4. Leyland Motors 5. Rolls Royce 6. T. Tilling, Ltd.	0·3 0·8 0·4 0·2 1·1 0·8	2 7 3·5 2 10 7	280 449 61 1,428 171 360	297 365 70 2,033 159 321
III. Electrical Equipment: 1. Callender's Cable 2. Ever Ready Co. 3. General Electric Co., Ltd. 4. Henley's Telegraph 5. Johnson & Phillips	1·3 2·1 1·7 0·5	3·5 1·5 5·5 4·5 1·3	231 197 * 275 247 168	210 167 * 257 228 175
IV. Textiles and Clothing: 1. Bleachers Association 2. Bradford Dyers 3. Amalgamated Cotton Mills Trust 4. Calico Printers 5. J. & P. Coats 6. English Sewing Cotton 7. Fine Cotton Spinners 8. British Celanese 9. Courtaulds	6·4 4·7 2·3 3·6 46·0 5·4 9·1 0·9 34·9	13 9 4·5 7 92 11 18 0·2 † 13 †	87 58 13 67 109 92 81 359 240	49 32 6 25 97 65 54 159
V. Food Production and Distribution: 1. Aerated Bread Co. 2. Bovril (Dfd.) 3. Crosse & Blackwell 4. Home & Colonial Stores 5. J. Lyons & Co. 6. Maypole Dairy (Dfd.) 7. Spiers & Pond 8. Spillers 9. Tate & Lyle 10. Unilever { Lever Bros. (Dfd.) Margarine Union 11. United Dairies	1·3 1·5 0·4 1·6 1·9 0·9 1·1 2·5 1·3 4·8 3·8	5 6 2 7 8 4 4 10 5 20 { 15	90 113 132 191 139 104 93 75 95 112 298 98	66 109 77 171 134 109 78 56 93 138 91
VI. Drink: 1. Allsopps 2. Bass 3. Benskins 4. Courage 5. Guinness 6. Watney (Units) 7. Distillers	0·2 4·1 0·3 1·9 32·4 3·4 8·0	0·1 3 0·2 1·4 24 3 6	200 165 310 180 101 274 177	208 171 246 187 123 302 159
VII. Tobacco: 1. Carreras ("B") 2. Godfrey Phillips 3. Imperial Tobacco	1-9 1-6 114-8	0·1 0·1 11·3	988 256 157	757 217 161

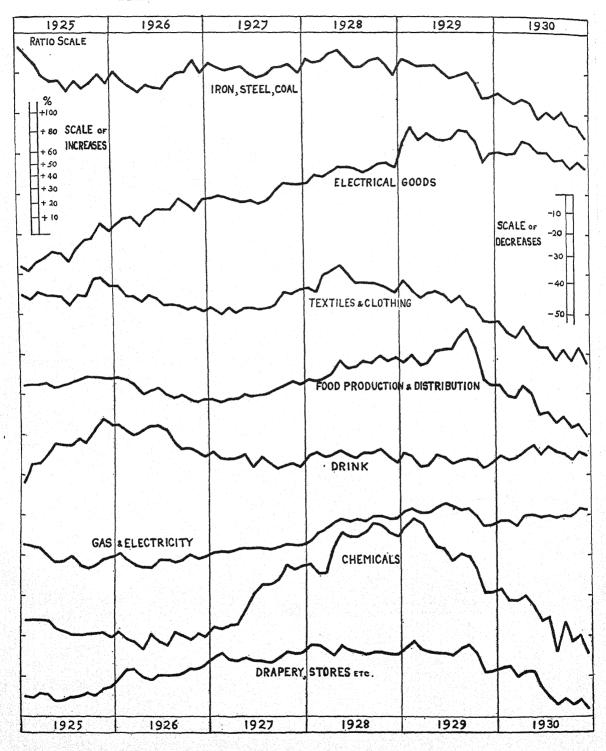
LIST OF SECURITIES IN NEW INDEX-(cont.)

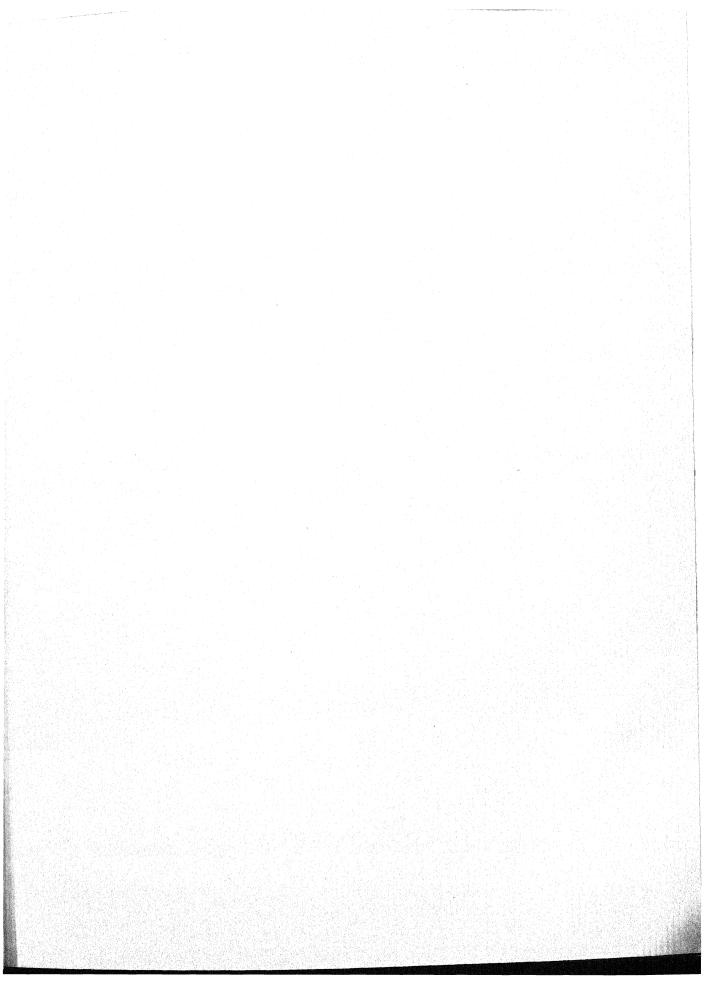
Ordinary Shares unless otherwise stated.		Weight assigned.	Quotation as % of 1924 Average.	
	£Mn.		July 1929	July 1930
VIII. Newspapers: 1. Associated Newspapers (Dfd.) 2. Daily Mail Trust	8-1	14 2	213 171 *	147 104 *
		16		
IX. Building Materials: 1. Assoc. Portland Cement 2. British Portland Cement 3. Crittall's Manufacturing 4. London Brick Co. 5. Wallpaper Manufactures (Dfd.)	1·8 1·7 — — 1·9	17 16·5 19 5 18	174 217 98 * — 245	147 187 56 * 165 * 235
		76		
X. Gas and Electricity Supply: 1. Gas Light & Coke 2. South Met. Gas Co. 3. County of London Electric 4. Metropolitan Electric Supply 5. Midland Counties Electric 6. Newcastle-on-Tyne Electric Supplies	15·3 6·6 3·1 1·7 —	22 10 4·5 2·5 1·5	105 105 275 204 160 * 134 *	104 103 240 189 132 * 112 *
		43		
XI. Chemicals: 1. Borax Consolidated (Dfd.) 2. British Match Corpn. (Bryant & May) 3. Imperial Chemicals { Nobels 4. International Paint, etc. 5. Pinchin Johnson 6. Salt Union	0.3	2 2 20 0.3 1.5	33 154 165 233 166 * 167	24 131 108 208 148 * 140
		27		
XII. Other Industries: 1. Cables & Wireless (Marconi) 2. Columbia Graphophone 3. Gramophone Co. 4. Gaumont British Picture Corpn. 5. Dunlop Rubber	0·5 1·9	8 1 3 4·5 10·5	229 2,655 940 225 * 201	158 737 395 145 * 147
XIII. Drapery, Stores, etc.:		70.5	777	7.01
1. J. Barker 2. Boots Pure Drug 3. Debenham Securities 4. Gamage 5. Gordon Hotels 6. Harrods 7. Maple 8. Marks & Spencer 9. Whiteleys	5·8 - 0·4 - 0·4 - 3·9 - 3·1	19·5 36·5 26 2·5 2·5 24·5 19·5 28 9·5	113 181 87 * 86 94 188 133 155 *	101 138 58 * 69 100 149 91 138 *
XIV. Shipping, etc.:				207
1. Cunard 2. Furness Withy 3. Pacific & Orient (Units) 4. R.M.S.P. 5. Imperial Airways	6.5 10.7 4.6	9 13 22 9 1	124 119 91 48 182 *	103 102 75 24 154 *
		54		
Total weight	•	1,000		

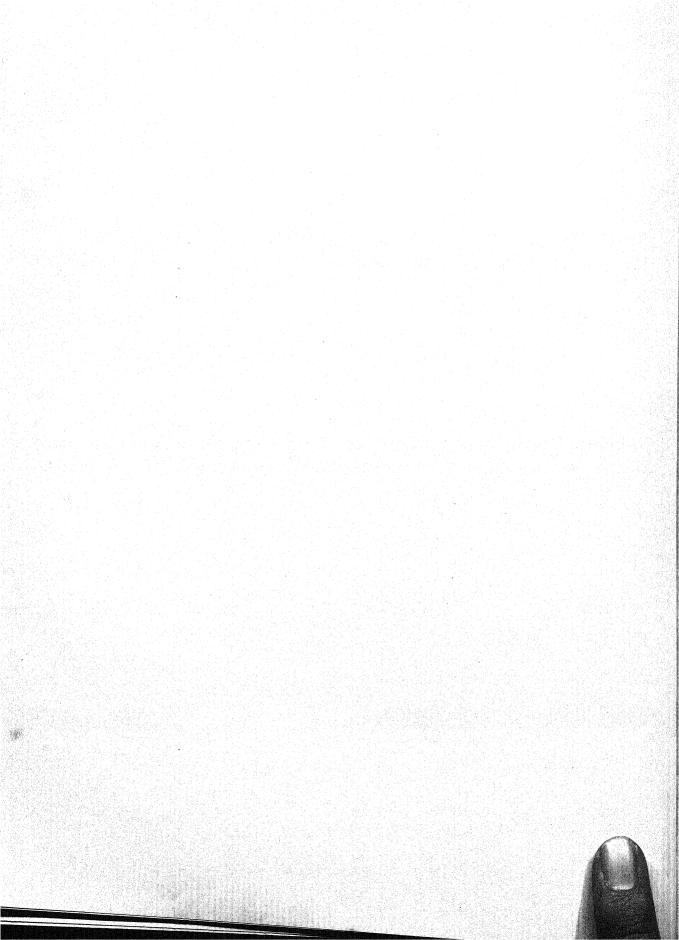
^{*} Estimated on artificial base. 1924 value not available.

[†] Reduced to give silk only its due relative importance in group.

DIAGRAM B. INDEX NUMBERS FOR EIGHT INDUSTRIAL GROUPS.







ROYAL ECONOMIC SOCIETY

ISSUED BY ARRANGEMENT WITH THE LONDON AND CAMBRIDGE ECONOMIC SERVICE

MEMORANDUM No. 29

STUDIES IN THE ARTIFICIAL CONTROL OF RAW MATERIAL SUPPLIES

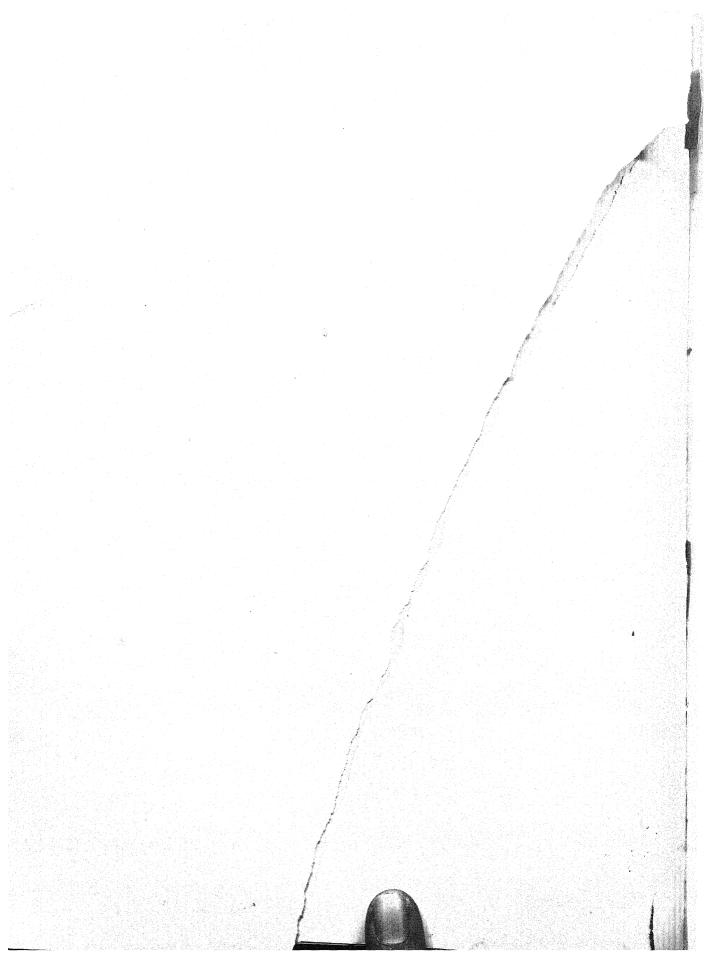
J. W. F. ROWE

No. 2. RUBBER

April, 1931

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STUDIES IN THE ARTIFICIAL CONTROL OF RAW MATERIAL SUPPLIES

J. W. F. ROWE

No. 2. RUBBER

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THE RUBBER INDUSTRY

I.—THE HISTORICAL BACKGROUND.

HE world's rubber industry of to-day was born with the present century, but it can hardly be said to have left the cradle before 1910. Commercial planting of rubber in the Middle East began about 1898, and in 1905 a quantity of some 150 tons of rubber was produced. The world's rubber supply, obtained by the collection of the wild product in the Amazon valley and in Africa, amounted to about 55,000 * tons in 1901, and reached a peak of 83,000 * tons in 1910, by which time the plantation production was 11,000 tons. In 1906 plantation crêpe sold for 6s. per lb., and planting started in earnest, not only under the stimulus of such a price and the rapidly increasing production of motor vehicles, but aided also by the facts that the coffee industry in Ceylon had been virtually annihilated by disease, while in general the older plantation industries were in a state of temporary overproduction with its accompaniment of reduced profits. Between 1906 and 1910 it is estimated that nearly I million acres were planted with rubber, but none of this acreage was, of course, in bearing at the time of the great rubber boom when the price touched 12s. 9d., and averaged 8s. 9d. for the whole of 1910. The profits at these prices were reaped by the wild rubber collectors, and by the very few early plantations with their output of 11,000 tons; also, of course, by speculators, though many of them lost heavily in the end. But capital was poured into the plantation industry to an extent which at the time seemed perfectly preposterous and extremely dangerous to all concerned, though subsequent history makes it doubtful whether such fears and condemnations were really justified. At first sight it may appear curious that the early development of the rubber plan-

tation industry should have been so exclusively a British affair. The United States was already. in 1910, consuming one half of the world's production, and it might be imagined that the American tyre manufacturers, if not the investing public, would have taken a hand in providing for their own requirements. But tyre manufacture in the U.S.A. was still a relatively small-scale industry, and all available financial resources were required by individual firms for the expansion of their manufacturing plant. Equally the United States as a whole had little or no surplus for foreign investment, while Americans disliked the idea of waiting six or seven years for any return, and had no experience of tropical plantation industries such as tea, coffee, sugar, etc., had already given to British capital. The only proved areas suitable for rubber planting were under the British flag, and, with ample funds to invest, London was obviously designed as the centre directing the development of the new industry. Germany might have played a much bigger part than she did, but early experiments in planting rubberproducing trees and vines, which were native to the German colonies in Africa, did not prove a success. This left British capital with a more or less clear field at the start.

The year 1910 was a turning-point in many respects. The rising price-level of the previous ten years was replaced by a downward trend which has virtually continued until the present day—with the exception of the artificial boom of the restriction period—despite an increase of consumption to approximately eight times that of 1910. The wild rubber industry began a decline which can only end ultimately at zero—a fate which prices fortunately cannot share, though they are at the moment not far behind in the race! But rubber planting was not confined to European capital; the interest of the Chinese and Malays, both in British Malaya

^{*} The figures make no allowance for moisture and other impurities, and the dry rubber equivalent was probably at least 20 per cent less.

and in the adjacent islands of the Dutch archipelago, was also aroused. The European industry was not much more than five years ahead of the native, and until certain recent potential developments came into sight, the native industry was catching up its late start in such a fashion as suggested the possibility that the European industry would in due course be

forced to retire from the field.

After the collapse of prices to a five-shilling level in 1911 and 1912, with a rapid subsequent decline to half a crown in 1914, the influx of European capital largely ceased. Planting programmes were vigorously pursued in Malaya, Ceylon and Java, and by 1914 the area under rubber is now estimated to have been 2.5 million acres, or nearly double that in 1910. By 1914 the effect of the considerable planting before the boom is shown by an increase of plantation exports to 76,000 tons as compared with 11,000 in 1910. By no means all the capital supplied in 1910 was, however, put to work by 1914. But for the British Treasury's war-time prohibition of the export of capital, it is possible that the planted area would have continued to increase faster than it actually did. On the other hand, the price of rubber had fallen below 2s. per lb., and there were many who feared that the expansion had been already overdone.* The actual increase, however, would certainly have been smaller but for Chinese and native planting, mainly of small-holdings. Native planting also began in Sumatra and other islands of the Netherlands East Indies, and since this latter at any rate was largely unknown at the time, probably more than a million acres were added during the Great War. Prices fluctuated during these years between two and three shillings, but in 1917 and 1918 the shortage of shipping may be said to have neutralised the fall which would otherwise have accompanied the large additions to production from estates planted in 1910-11, and now coming into full bearing. As it was, stocks accumulated in the East despite the operation of voluntary restriction to the tune of 80 per cent. of the 1917 output, and the Singapore price was under is., i.e. less than half the London price-level quoted above. With the Armistice, sufficient shipping was released to make possible a total world net export of 398,000 tons in 1919 as compared with 221,000 tons in 1918; prices fluctuated somewhat violently, but the world was eager to replenish its stocks, and the average for the year was 2s. $1\frac{1}{4}d$. The voluntary restriction of rubber

production in 1918 was one of several similar restrictions necessitated primarily by the shortage of shipping relatively to the distance between producers of staple raw materials and the chief countries of consumption. It has little permanent interest, apart from a government committee, the Rubber Protection Commission, which was appointed in Malaya, under the presidency of Sir George Maxwell, to consider the difficulties of the 1918 situation. This commission drafted a scheme of compulsory output restriction for Malaya and the N.E.I., and efforts were made to secure the co-operation of the Dutch. But the Armistice was signed before these negotiations had reached a serious stage, and therefore nothing came of the scheme at the time. It was this scheme, however, which was to be the "runner-up" before the Stevenson Committee three years

Production, as measured by net exports, was therefore abnormally low in 1918, and abnormally high in 1919 owing to the shipment of stocks carried over from the previous year. If the 1917 exports may be regarded as normal, the production of plantation rubber increased by at least 100,000 tons between 1917 and 1920. The collapse of the post-war boom in America brought a crashing fall in price in the summer of 1920 from the near neighbourhood of 3s. to as low as 10d. At that time few estates could cover even their direct costs at such a pricelevel, and the Rubber Growers' Association promptly called upon its members to restrict their output by 25 per cent, for one year from November 1. This restriction was well supported by the members of the Association, and also by many Dutch and other foreign producers. But its effects on prices were less than was anticipated for two reasons, first because manufacturers, and especially American manufacturers, were heavily stocked with rubber and rubber goods, and in addition had heavy forward commitments,* so that they virtually ceased to buy at all; and secondly because the native plantings of 1914-16 were now coming into bearing, so that the actual production in Malaya was not reduced by the full 25 per cent. The extent to which visible stocks were accumulated appears somewhat surprising, but in part this may have been the enforced stock-holding of deliveries made in 1921 against forward purchases made in 1920. Statistics of stocks at this date are somewhat incomplete,

^{*} These fears found expression also in the formation of Rubber Roadways, Ltd., at the end of 1913, to investigate this and other means of increasing consumption.

^{*} The increase of absorption during 1919 was so startling that many manufacturers feared a shortage and made future contracts for two or three years ahead; the resulting losses were very great indeed, and brought about the bankruptcy of many American manufacturers, and serious difficulties to the biggest British firm.

but the Stevenson Committee estimated a world total of 310,000 tons on January 1, 1922, of which only 60,000 tons was in producing countries. World production in 1921 was reduced by 50,000 tons as compared with 1920, and the outlook towards the end of that year was becoming in general a little brighter, so that prices rose somewhat sharply to above is. This coincided with the voting on the renewal of the R.G.A.'s restriction scheme. Whether any influence was brought to bear on the market at this juncture by design, or whether it was a purely spontaneous movement, cannot possibly be decided, but the effect was that the R.G.A. failed to secure the support of its members to the necessary extent of 70 per cent. Many were dissatisfied with the partial character of the scheme, while some were optimistic as to an early revival in the American demand. These and other factors doubtless operated in the minds of members, but it would certainly seem possible, and even probable, that if there had been no such rise in price, their verdict would have been different. In that event the whole history of the last ten years might also have been entirely different, for if voluntary restriction had been maintained for another year, any further restriction would probably have been avoided. As it was, the breakdown of voluntary restriction appears to have been a decisive factor in the mind of the Colonial Secretary, who had already received most urgent representations from Malaya and Ceylon. On October 24 he appointed the now famous Stevenson Committee, by way of a six months' belated reply to the R.G.A.'s request for compulsory restriction, which had been made early in the year.

II.—AN OUTLINE OF EVENTS DURING THE PERIOD OF RESTRICTION.*

The Stevenson Committee was appointed on October 24, 1921, and its first report is dated May 19, 1922, though it was not published until June. The report states, however, that the chairman reported the position to the Colonial Secretary, at that time Mr. Winston Churchill. towards the end of November 1921, and obtained his authority to approach the Netherlands Government with a view to ascertaining whether they would be prepared to co-operate in the adoption of one or other of the two schemes ultimately set out in their report. It is a reasonable inference, therefore, that the length of the Committee's deliberations was primarily due to attempts to obtain at least informal assurances of co-operation from the Dutch Government, though the failure of these attempts may have necessitated prolonged discussion by the Committee itself as to whether they should report in favour of restriction in the British Colonies irrespective of such co-opera-In any case, the final decision of the Committee was that they could not carry their inquiry further " until the attitude of the Dutch is definitely known," and they therefore recom-mended that the Colonial Secretary should "cause further representations to be made to the Dutch Government on the subject with a view to holding an international conference in London of the principal interests concerned."

Proposals with regard to co-operative legislation to limit the output of rubber were accordingly made by the British Government to the Netherlands Government. Early in July the Dutch Rubber Growers' Association at the Hague requested their Government to appoint a committee for the same purpose as the Stevenson Committee. But in August the Dutch Minister of the Colonies refused to appoint such a committee, and Great Britain was informed that the Netherlands Government had decided not to take at present any legislative measures to restrict the output of rubber in the Netherlands East Indies. The Stevenson Committee then resumed its deliberations. In September the R.G.A. appealed to the Colonial Office to proceed with a restriction scheme regardless of the Dutch Government's refusal to co-operate, and announced its intentions to try and secure the voluntary co-operation of the Britishcontrolled plantations in the Dutch colonies. On October 2 the second report of the Stevenson Committee was published, together with an official intimation that the Colonial Secretary was in favour of its proposals for restriction in Malaya and Ceylon.

According to the first report of the Stevenson Committee, the salient facts of the situation were as follows:

Year.	World Production,	World Consumption (i.e. Absorption).
	000 tons	000 tons
1920	370	310
1921	282	265
I 922 (estimated))* 400	300 †

Stocks on January 1, 1922, were estimated to be:

000 +---

and the second s	000 tons
In consuming countries	210
In producing countries	60
Afloat	40
	-
Total Stocks	310

The Committee estimated "necessary stocks" at the equivalent of eight months' consumption, *i.e.* at 200,000 tons, and therefore considered that surplus stocks amounted to 110,000 tons.

For convenience, it may be added that the price-level was around 10d. at the beginning of January 1922, but then rapidly fell away, and was fluctuating between 7d. and 8d. until the end of September with a general tendency to decline.

The Committee concluded that these figures suggested the need for a 25 per cent. restriction of output in order to reduce production to the level of probable consumption, but that in their opinion the depression in the industry could not be sufficiently rapidly relieved unless a substantial inroad were made into the existing surplus stocks during 1922, and that a more drastic restriction was imperative to ensure this.

The relative importance of different producing countries was estimated as follows:

	Percentage of World Pro- duction.
Malaya	···· 57·5
Ceylon	12.5
South India and Burma	2.0
Netherlands East Indies	
Other countries	2.5
	100.0

^{*} I.e. without restriction.
† This was the average for 1919-21.

^{*} This section contains only a résumé of facts and events, and all discussion and critical examination thereof is relegated to the next section; readers who are familiar with the facts may therefore pass on to Section III. For tabulated statistics see Appendix.

In consequence, the Committee "desire to put on record that at the outset of their inquiry they formed, and have never departed from, the conviction that it was impossible to deal with the problem as one affecting only the British Colonies and Dependencies in which rubber is produced. . . . This conviction formed the basis of the Committee's deliberations, and, in particular, they have throughout kept in view the fact that no scheme, however excellent in itself, could properly be recommended to you for adoption unless it commended itself to the authorities of the Dutch East Indies

The Committee put forward two schemes. The first was the scheme of the F.M.S. Protection Commission of 1918, elaborated by the Duncan Committee of 1920–21, and of which the fundamental principle was a restriction of actual output. The second scheme was Lord Stevenson's own proposal for a restriction of exports by the imposition of a graduated scale of export duties, varying with the percentage of standard production (i.e. output during a specified previous period), which percentage would be automatically regulated according to the price of rubber. The Committee regarded this second scheme "as the preferable of the two and easily workable," but no reasons for the choice are given in the report except a hint in the previous paragraph that the first would bring in no additional revenue to the State, whereas the second would, "and should not prove difficult to administer." The Committee proposed that for the first twelve months the percentage of standard production should be fixed at 60 per cent., and that when the quarterly average price of ribbed smoke sheet reached is, 3d, the percentage should be raised by 5 per cent. with similar adjustments in the following quarters so long as that price was maintained. In fixing the pivotal price at is. 3d., "the Committee arrived at what they believed to be a figure which would ensure a satisfactory margin of profit, notwithstanding the somewhat higher cost of a restricted crop. At the same time, the manufacturers of rubber goods should be able to obtain their supplies of crude rubber at a reasonable price with much less risk of the violent fluctuations which have been such a drawback in the past, and should thus have every encouragement to develop new uses of rubber. . . . "

In their second report the Committee, faced with the refusal of co-operation by the Dutch, reversed their previous conclusion that such co-operation was essential, on the following grounds:

I. Excessive and increasing production of

rubber, owing to the failure of the producers to make voluntary restriction effective, with the consequent continuation of the depression in the price of rubber.

2. The R.G.A.'s request for restriction in British dependencies independently of the Netherlands Government's attitude.

3. The assurances obtained by the R.G.A. from British estates in other territories of their co-operation by voluntary restriction on the lines of any restriction imposed within the British Empire.

They therefore proposed the adoption of Scheme II as set out in their first report, with certain modifications and additions, basing their recommendations on an absorption of 300,000 tons "notwithstanding the fact that the rate of the world's absorption of rubber for the present year shows a substantial increase" on this their previous estimate, because they wished to " err on the safe side."

The necessary legislation was rushed through in Ceylon, the Malay States and the Straits Settlements, and the scheme became effective on November 1, 1922. Its main provisions may be summarised as follows:

I. The percentage exportable at the minimum rate of duty $(\frac{1}{2}d.)$,* to start at 60 per cent. of standard production, which was in the case of mature areas to be the production in the year ending October 31, 1920.

2. For the purpose of the scheme four restriction quarters of 3 months each were established, beginning November 1.

3. If during the second or any subsequent restriction quarter the price averages less than is. per lb., the percentage exportable at the minimum rate of duty shall be reduced to 55, and by a further five points every succeeding quarter unless and until the average price of the preceding quarter shall reach 1s. 3d. (The percentage could not fall below 60 in the first instance unless the price averaged less than is.)

4. If and when in any restriction quarter the price averaged 1s. 3d. but less than 1s 6d., the percentage exportable at the minimum rate of duty shall be increased by 5 points for the ensuing quarter, but if in any quarter the average price exceeds is. 6d., by 10 points for the ensuing

quarter.

5. Once the percentage has been lowered, it

^{*} I.e. 2 cents Straits currency.

cannot be increased except on a basic

price of is. 3d.

6. Any producer to be able to export more than his quota on payment of higher export duties, beginning with 4d. for the first 5 per cent. above his quarterly export quota.

The scheme does not lend itself to compact tabular summary, but, in short, the objective was to raise the price to 1s. 3d. by more and more drastic restriction if that was required, and then to allow a gradual resumption of full production so long as that price was maintained: if it was not maintained, restriction would be steadily increased until that level was restored, while if the price rose above is. 6d., a more rapid rate of release was allowed.

Rules were issued to provide for assessments of standard production under unusual circumstances, and a standard scale of output was fixed for immature rubber. An advisory committee was appointed in London to coordinate the operation of the scheme in the different colonies, and to advise the Colonial Secretary as to the alterations in the rate of minimum duty required under the scheme, and on all matters referred to them by him. the scheme was automatic, the advice as to alterations merely involved the reporting of the average quarterly prices.) Advisory committees were also set up in Malaya and Ceylon to deal with the local administration of the scheme and to advise their respective Governments.

The First Restriction Year.

The publication of the report, and its adoption by the British Government, had an instant effect on prices. From 7d. in September the price jumped to is. in October, and by the end of the year stood at 1s. 2d., which, as the rise continued during January 1923, proved to be the average price for the first restriction quarter. The American manufacturers had concluded during the summer that no restriction would be enforced, and their agitation at the decision advertised to the world that they were badly bought, a matter of which speculators were quick to take advantage. For the second restriction quarter the average was nearly 1s. 5d., and therefore an additional 5 per cent. release was allowed for the third quarter. But in that May-July quarter the price fell away again, and as it averaged only a little over 1s. 2d., this additional release was cancelled, and the first year of restriction ended with the percentage exportable at the minimum duty still 60 per cent. and price failing by 0.006 of a penny to reach the desired level of rs. 3d.

1922 production as measured by net exports had totalled nearly 400,000 tons, despite a certain amount of voluntary restriction, and had therefore very nearly equalled actual absorption; there had been a slight increase of stocks in Malaya, but no such general increase as the Stevenson Committee had expected in their first report. During 1923 restriction in Malaya and Ceylon prevented any increase in world supplies, and as consumption continued to increase, visible stocks * were reduced by 30-40,000 tons

during the year.

At first sight it may seem somewhat extraordinary that restriction to the tune of 40 per cent. on nearly two-thirds of the supply did no more than prevent any increase in world supplies. But it must be remembered that large new areas were coming into bearing in all producing countries. Thus, although in 1920 Malaya had actually shipped only 181,000 tons, the standard production for the first restriction year was fixed at 274,200 tons.† This made the permissible shipments approximately 166,000 tons as compared with exports of 214,000 tons in 1922, but actually Malaya in 1923 exported 201,000 tons owing partly to the shipment of 20,000 tons of the stocks on hand when restriction was imposed, and partly to evasion of the restriction regulations. In Ceylon there was a much greater proportionate reduction than in Malaya, but even the combined total was more than outweighed by the increased exports from other producing countries, headed by the N.E.I., with 23,000 tons more than in 1922. Thus although actual production in Malaya and Ceylon was considerably smaller than in 1922, the effect was completely neutralised, partly by the shipment of stocks on hand in those countries and partly by the increased production of other countries, and it was the increase in demand, and not a decrease in supply, which brought about the reduction of stocks.

The results of the first year's working of the scheme, however, seemed such as to justify its adoption, and to offer good prospects of a rapid return to normality in 1924. Vigorous protests had been raised by the rubber manufacturers of Great Britain in October-November 1922, but the appointment of Lt.-Col. J. Seely-

* Visible stocks throughout this Memorandum mean stocks at the ports in the East and at Para, rubber afloat to all countries, port stocks in the United Kingdom and at Amsterdam and

Antwerp, and port stocks plus manufacturers' stocks in the United States. See Statistical Appendix, Table IV. Thus manufacturers stocks are not included except for the U.S.A., † There was much misconception, especially in the U.S.A., on this point. Although the assessment of mature estates was based on the actual production of mature estates in 1920, this did not mean that the total standard production of Malaya in 1923 would be no greater than the total production of 1920. Equally, to say that there was over-assessment because the 1923 figure was so much greater is absurd, whatever the case on other

Clarke to represent their point of view on the Colonial Office Advisory Committee had more or less stopped any agitation from that quarter. The rubber manufacturers of the United States had also been up in arms, and after much pressure the R.G.A. had sent a small delegation to the U.S.A. The result was that the R.G.A. refused to entertain the American plea for modifications designed to give the scheme greater elasticity, but the majority of the manufacturers maintain that their fears were allayed by informal but perfectly definite assurances that action would be taken to prevent any rise in price substantially above 1s. 6d.* The U.S. Secretary of Commerce, however, had become active in the whole matter of foreign combinations controlling essential raw materials, and rubber in particular. This Department was engaged in active propaganda during the spring of 1923 in support of the proposal for a survey of the possibilities of rubber growing in new countries, and such a survey was instituted by Congress, although care was taken to stress the point that the real reason for the survey was the anticipation of a rubber shortage in 1928–30 owing to the recent and contemporary cessation of planting, and that it was not merely a reply to restriction by Great Britain. Apart from this activity by the Department of Commerce, the scheme was not encountering any serious opposition from consumers by the end of the first year's working.

The Second Restriction Year.

During the second restriction year (November 1, 1923-24) the percentage exportable at the minimum rate of duty remained at 60 until the fourth quarter, when it was reduced to 55. The average quarterly prices were approximately is. 2d., is. id., iid. and is. $2\frac{1}{2}d$. Thus, though there was a sharp recovery when restriction was tightened as the result of the failure of the average to reach is. in the third quarter, the average failed to reach is. 3d. in the fourth quarter, and therefore the year ended with the prospect of a further reduction to 50 per cent. World net exports in 1924 totalled 428,700 tons, or approximately 20,000 tons more than in 1923. For the Malayan restriction area, the basis of assessment was changed to a scale of output per acre according to the age of the trees; this considerably reduced the maxima for mature rubber, but was, however, partly balanced by the addition of new areas, and by the fact that all young rubber in bearing, but not yet mature, had become a year older and therefore qualified for higher assessments. The net result was a

standard production of 246,900 tons as compared with 274,000 tons. Additional allowances were, however, granted to small-holders, and the licensed export was probably nearly 170,000 tons. Actually the net exports of Malava exceeded this by nearly 15,000 tons. Of this excess of 15,000 tons, about 5,000 tons was due to a further reduction of stocks at Singapore and Penang, but the balance was presumably due mainly to smuggling or other evasion of the laws, since very little rubber paid more than the minimum duty. The net exports from Malaya were nevertheless 20,000 tons lower than in 1923. The standard production of Cevlon was slightly greater owing to the growing maturity of new plantations, and the net exports were approximately the same as in 1923, the increased permissible exports being balanced by the absence of the small shipment of stocks which had taken place the year before. Against this total decline of 20,000 tons from the restriction area, the N.E.I. exported 32,000 tons more than in 1923. Out of a total of 149,000 tons, approximately 23,000 tons came from British estates which were voluntarily following the restriction scheme, and their output was not appreciably greater. The output of the Dutch and other estates amounted to 69,000 tons, an increase of 10,000 tons on 1923. The balance of 55,000 tons was native rubber (at its estimated dry weight), and this was 20,000 tons more than in the previous year; to some extent the increase was due to rubber smuggled from Malaya to Sumatra and other Dutch islands, but in the main it was definitely an increase of Dutch native production. Every other producing country increased its exports, and hence, as has been said, the world's net exports were 20,000 tons greater. On the other hand, world absorption increased by 35,000 tons, and exceeded net exports by more than 40,000 tons in the year. The statistics of visible stocks show an even greater decline, amounting to 60,000 tons, a discrepancy which cannot really be explained. The Stevenson Committee estimated necessary stocks at the equivalent of eight months' consumption, including invisible as well as visible stocks. As stated above, crude rubber in the manufacturers' hands is included in the statistics of visible stocks in the U.S.A., but in no other case. The recorded visible stocks on January 1, 1925, at 181,000 tons, were equivalent to only $4\frac{1}{2}$ months' consumption at the 1924 rate, or including an allowance for invisible stocks throughout the world other than in the U.S.A., it may be said that stocks were below two-thirds of the level deemed necessary and proper by the Stevenson Committee. Even if the Committee erred on the high side in this

^{*} This matter is considered in detail below. See pp. 49-51.

matter, the deficiency in stocks by January 1, 1925, relative to the current rate of absorption, was nearly as serious as the excess had been in January 1922 and January 1923.

The Third Restriction Year.

For the first quarter of the third restriction year (i.e. November 1, 1924–January 31, 1925) the percentage exportable dropped to 50; the average price just failed by a tiny fraction to reach the 1s. 6d., which would have given a 10 points' additional release, instead of the 5 points actually secured. In the February-April quarter the average was over 1s. 7d., and during the third quarter, therefore, the percentage exportable was raised by 10 points to 65. But consumption was still outrunning production, and stocks were dwindling still further. At the end of June 1925 the total visible stocks of the world were only 129,000 tons, which was equivalent to less than three months' consumption at the current rate. In the United Kingdom there was a mere 7,000 tons, and the 50,000 tons in the U.S.A., which includes manufacturers' as well as dealers' stocks, was equivalent to little more than one month's American consumption. Nearly 60,000 tons is estimated to have been affoat, but only 22,000 tons were awaiting shipment in the Middle East, and this must be considered very near the necessary working minimum. As a result, in the May-July quarter the price averaged 3s. $2\frac{1}{2}d$. gave another 10 points' release to 75 per cent., but the price continued to rise, and averaged over 3s. 7d. for the August-October quarter. The peak of 4s. $7\frac{1}{4}d$. was reached early in December, but the increase in stocks in the U.S.A. at the end of the year to 51,000 tons, as compared with less than 35,000 tons at the end of September, showed that, with the exportable percentage again increased by 10 points and now standing at 85, the critical point had been passed, and at the close of the year the price had dropped to 3s. $10\frac{1}{2}d$.

The world's net exports during 1925 amounted to 517,500 tons. World absorption is estimated at 560,000 tons. The deficiency in supplies was therefore no greater than in 1924, but in that year it could be made good from stocks without seriously affecting the price, whereas in 1925 it could not. Moreover, the American manufacturers were not alone in their belief that a chronic shortage was almost inevitable within a few years, and many believed that the rise in price was genuine, in the sense that it was an attempt to forestall the coming shortage by affording a stimulus to new planting; the native planting already going on in

the N.E.I. was still largely unknown. The actual deficiency was comparatively smallonly 7 per cent.—but it was sufficient to raise the price by 400 per cent. In 1925 standard production in Malaya was eventually * fixed at 276,793 tons. Including special allowances to small-holders, the licensed export was about 200,000 tons, whereas actual net exports were 210,000 tons, the excess being presumably the results of smuggling and evasion generally. The standard production of Ceylon was higher, but the net exports were some 2,000 tons in excess of the licensed export. Malaya and Ceylon together exported 35,000 tons more than in 1924, and the N.E.I. nearly 40,000 tons more, of which native rubber contributed nearly three-quarters, though a substantial amount of this was rubber smuggled from Malaya to the adjoining Dutch Islands. In all, the world's net exports were 90,000 tons more than in 1924.

The Fourth Restriction Year.

As has already been said, the fourth restriction year started with prices at the peak, and the exportable percentage at 85. At the end of the first quarter (January 31) the price was down to 2s. 8d., and the exportable percentage was raised by 5 points more than the 10 which was automatically due, thus bringing the percentage to 100, and nominally removing all restriction. On April 26 the Colonial Office announced drastic changes of the scheme. The exportable percentage for the coming May-July quarter was to be maintained at 100 per cent., but if the price during this quarter averaged less than is. 9d. the percentage would be reduced to 80 for the August-October quarter. "pivotal price" was thus raised to is. 9d., and provision made for greater elasticity of adjustment. No reasons whatever were given for these changes. At the end of April the price was under 2s., and the average for the quarter then ending was 2s. 4d. By the beginning of June the price was is. $8\frac{1}{2}d$., but then the fall was more or less arrested, and though the tendency to decline continued, the price never fell below is. 8d., and the average for the quarter came out at is. 9.0017d. Restriction was therefore avoided for a further quarter by the narrowest of margins. In the August-October quarter the average was only just over is. 8d., and consequently the fifth restriction year began with an exportable percentage of 80. Meantime a radical change was taking place in respect of stocks. During the year 1926 the

^{*} The maximum allowance per acre was increased during the year from 400 to 500 lbs.

† This had been foreshadowed in a statement issued on

world's visible stocks increased from 159,000 tons to 245,000 tons; London and Liverpool started the year with 7,000 tons and finished it with 59,000, while the corresponding figures for the U.S.A. were 51,000 and 72,000. even at 245,000 tons, these stocks represented less than six months' consumption at the 1925 rate, or say seven months' if allowance be made for invisible stocks outside the U.S.A., which were probably abnormally large at this time. Three successive quarters of full production had done little more than restore a comfortable position, and even that would not have been accomplished if consumption had continued to expand. An account of events in the U.S.A. during the boom will receive special attention in Section IV. There can be little doubt that Mr. Hoover's campaign for rubber economy had some share in reducing the American absorption of crude rubber by 25,000 tons in 1926 as compared with the previous year, but the main share in this achievement must be allotted to reclaimed rubber. In 1924 the U.S.A. had used 76,000 tons of reclaimed, or about as much as in 1919 and 1920 and less than the amount used in 1917. In 1925 the absorption of reclaimed amounted to 137,000 tons, and in 1926 to 164,500. In other words, without the increase of reclaimed the U.S.A. would have required 30,000 tons more crude rubber in 1925, and would have required as much crude rubber in 1926 as in 1925, instead of 25,000 tons The United Kingdom's absorption of crude rubber was increased by 10,000 tons in 1926, and the rest of the world maintained its net imports. World absorption was therefore reduced by some 15,000 tons, and this actual decline, instead of the customary expansion, made possible the rebuilding of stocks to a reasonable level. World net exports, however, might well have been more than the 100,000 tons greater which they actually were. standard production of Malaya was fixed at 314,853 tons, an increase of 38,000 due partly still to the increased area and the greater maturity of the trees, but also to the increased maximum for small-holdings. The licensed export may be put at 300,000 tons, whereas the actual export was 286,000 tons, and of this a significant quantity was undoubtedly smuggled. Malaya could not in fact produce its standard production, although it exported 76,000 tons more rubber in 1926 than in 1925. Ceylon was in the same position; with a standard production of 70,475 tons her exports only reached 58,800, although this was an increase of 13,000 The restriction areas therefore provided 90,000 tons of the increased supply, and the N.E.I. supplied 15,000 tons, mostly from

British estates which had been voluntarily following the scheme and were now, therefore, producing freely. Dutch native rubber had temporarily come to a halt.

The Fifth Restriction Year.

The fifth restriction year opened with the exportable percentage reduced to 80, and during the first quarter (November 1926-January 1927) the price averaged a little over 1s. 7d. At the end of October 1926, the Colonial Office had announced a full revision of the scheme, thereby supplementing the incomplete and interim statement of the previous April. The revised scheme may be summarised as follows:

When the average price for the quarter is:

The exportable percentage in the succeeding quarter to be:

Increased to 100.

Over 3s. 2s. or over.

Increased by 10, or if previous figure 80, increased to 100.

Not less than is. 9d., but under 2s.

No change until such average has been recorded for three successive quarters, when percentage will be increased by 10.

Not less than is. 3d., but less than is. 9d.

Reduced by 10, or if previous figure 100, reduced to

Below is. 3d.

Reduced to 6o.

In no case would the exportable maximum be increased above 100, or decreased below 60.

The announcement also stated that no further alterations would be made for twelve Therefore, for the quarter February-April 1927, the percentage exportable was reduced to 70, and since in that quarter the price averaged only a little above is. $7\frac{1}{2}d$. though this was a little higher than in the previous quarter, the minimum of 60 per cent. became operative during the May-July quarter. Despite this rapid return to drastic restriction, the price continued to sag slowly, until in the latter half of June there was a sharp break from a little under is. 8d. to is $4\frac{1}{4}d$. From this there was some recovery, and throughout July, August and most of September the price hovered round about is. 5d. After another break to under 1s. 4d., there was again some recovery, and the average for the August-October quarter eventually came out a little over 1s. $4\frac{1}{2}d$. The stability during the first half of the year, and the decline and more nervously erratic course of prices during the second half finds its counterpart in the statistics of stocks. At the beginning of 1927, the world's visible stocks amounted to 250,000 tons; at the end of June the figures showed only a small increase, but September saw a much larger addition, despite the return to 60 per cent. restriction five months previously. During the first half of the year the failure of Malayan exports to show any reduction at all commensurate with the reduced permissible export was put down, and quite rightly, to the fact that producers, having been unable to produce their standard production during the three quarters of 1926 when there had been no restriction, had accumulated a substantial amount of unexpired export rights and coupons. The reduction to 80 in the November-January quarter had made little difference to the exports from Malaya, which had never much exceeded 90 per cent. of the standard production and were now maintained at that figure by the use of these accumulated export rights. As restriction was tightened, it became gradually effective, but so slowly that by August the market was beginning to think that it never would achieve the reduction in supplies from the restriction area necessary to outweigh the increase in supplies from other sources. The standard production of Malaya in 1927 was 336,900 tons, and the licensed export (for the calendar year 1927) may be put at approximately 220,000 tons; actually the exports amounted to 242,000 tons. On November 1, 1926, unexpired export rights * totalled 23,544 tons; at the end of January 1927, the total was 18,870 tons, of April 1927, 13,600 tons, and of the calendar year, approximately 10,500 tons. Thus of the 22,000 tons excess of actual over licensed exports, probably 10,000 tons represented unexpired export rights, the balance being presumably smuggled rubber, Ceylon's exports were also 10,000 tons more than they should have been on the basis of standard production. The actual exports from Malaya and Ceylon were some 47,000 tons less than in 1926, but against this there was an increase of 26,000 tons from the N.E.I., and 7,000 tons from other countries. The final result was that world net exports were 607,300 tons as compared with 621,900 tons in 1926. World absorption is estimated at 590,000 tons or an increase of 45,000 tons; there was only a small increase in the U.S.A. and the U.K., but the net imports by other countries showed a record increase of 32,000 tons, and this resulted in a reduction of stocks in the U.K. in the last quarter of the year. The world's total visible stocks increased by 13,000 tons during the year, and at the end represented a little less than six months' consumption.

The sixth and last year of restriction opened with a rapid rise in price from under 1s. 4d. to over 18.8d., and the average for the first quarter was is. 7d., nearly $2\frac{1}{2}d$. more than in the preceding quarter. Although on October 20, 1927, the Colonial Office had announced that the Governments of Malaya and Ceylon would be asked to overhaul the machinery of the restriction scheme "with a view to increasing the efficiency of its working," and that "full right was reserved to make any changes considered necessary as from February 1, 1928, as much notice being given as possible," no changes were in fact made at that date. The only material alteration was the introduction of a new basis of assessment in Malaya, which was undoubtedly designed to reduce the standard production, and did in fact do so by nearly 23,000 tons. Restriction was thus tightened, although the percentage exportable remained unaltered, and further limitation on the use of unexpired export rights also tended in the same direction. But though restriction was thus increased, the main reason for the substantial rise in price was a wave of heavy buying not only by the Continent but also by the U.S.A. During January 1928, prices began to decline slowly, and had reached is. $6\frac{1}{2}d$. when on February 9 the Prime Minister announced that the Committee of Civil Research had been asked to report on the whole policy of restriction, whether the existing scheme should be continued, modified or removed, and to submit recommendations both as to the policy to be adopted, and as to the steps to be taken to carry it into effect. This announcement lowered prices by $1\frac{1}{2}d$. at the close of the day's business, quotations having been $2\frac{1}{2}d$. lower at one time. A steady but rapid decline then ensued, and by mid-March the price was below is. During the latter half of the month there was some recovery, and at the beginning of April the level was approximately is. id. Then on April 4 the Prime Minister made his announcement that the Government having received the report of the Civil Research Committee, had decided that "all restrictions on the export of rubber from British Malaya and Ceylon will be removed on November 1, 1928, the existing scheme being continued unaltered in the mean-This announcement was made just after the close of the London market, and therefore before the closing of the New York market —a matter which gave rise to considerable criticism from Mincing Lane. On the following day the price dropped by $4\frac{1}{2}d$. but speedily settled between 8d. and 9d., where it remained until the end of May. In June there was an advance

^{*} Some limitation was imposed on the validity of export rights issued on and after February 1, 1927, but as this was not retrospective, and as all estates could produce up to the 60 per cent. release then operative, the effect was negligible.

to a little over 9d. and in September a small decline. But broadly speaking the price-level was stable at $8\frac{1}{2}d$. $-9\frac{1}{2}d$. from April until the removal of restriction on November 1, and

indeed until the end of 1928.

In the two months following the end of restriction Malayan net exports were at a rate of nearly 60,000 tons per month, as compared with an average of less than 20,000 tons in the preceding months of the year. In order to ascertain the relations of production, consumption and stocks during the final year of restriction and at the same time to secure comparability with figures already given and to be given, it may be assumed that during November and December a total of 35,000 tons would have been exported if restriction had continued at 60 per cent. A similar assumption may be made for Cevlon. The net exports of Malaya during 1928 may then be put at 215,000 tons, and of Cevlon at 50,000 tons. Shipments from the N.E.I. were not much affected by the removal of restriction, and the total world net exports in 1928 may be put at approximately 560,000 tons. World absorption amounted to 680,000

Thus demand was in excess of supply to the extent of 120,000 tons, as is also shown by the decline of stocks in consuming countries. On September 30, 1928, world visible stocks were equivalent to less than four months' consumption at the current rate. The fall in prices from 1s. 7d. in January to less than half that amount is no criterion whatever of the current relations of demand and supply; consumers knew, or thought they knew, that there would be ample supplies soon after the removal of restriction, and by allowing stocks to dwindle to a point which in 1925 had resulted in rubber at 4s. 6d., the increased demand was just met until the increased supplies became available. Otherwise, since stocks were by no means excessive at the beginning of the year, the increased demand would certainly have required increased supplies from the restriction areas, and the price would undoubtedly have been in the neighbourhood of is. 9d. or even 2s. But such reflections more properly belong to the next section in which the wisdom or folly of this and other aspects of restriction will be discussed on the basis of the facts now duly set forth.

(I) THE NECESSITY AND ADVISABILITY OF RESTRICTION.

The word "necessity" here requires some definition. It is meant to imply that under laissez-faire equilibrium between supply and demand would not have been established sufficiently quickly or smoothly to avoid the financial failure or actual closing-down of productive capacity which was reasonably efficient at the time, and which would be required again in the near future, and that artificial control was necessary to avoid a wholly unnecessary financial loss to the industry and the community. There is a general presumption that laissez-faire makes for the best interests of the producer, as well as the consumer; the question here is whether this general presumption was on this occasion incorrect, and whether therefore some form of artificial control was not necessary to secure the best interests of producers—the consumers' point of view will be considered later. If not deemed an absolute necessity, some measure of control might still have been advisable.

In order to answer the question whether any form of conscious control was necessary, some attempt must be made to estimate what world production would have been if there had been no restriction, and if no capacity had been closed down. This is an extremely difficult and hazardous task. During the first restriction year, Malayan assessments of standard production were most probably on too generous a scale, and therefore the standard production of the second year may be taken as approximating potential production both in 1923 and As will be argued later, there is, however, some doubt as to whether the Malayan smallholders were not under-assessed in the sense that they would have produced more than their assessments if there had been no restriction. But while this qualification should be borne in mind, its magnitude would not be sufficient to invalidate the arguments to be based on the statistics in the table below. The statistics of standard production can be taken as a reasonable and sufficient approximation to potential production up to and including 1925. But after that the hypothesis becomes more and more doubtful. On the one hand, we now know that the actual production in 1929 and 1930 has been enormously greater than the highest standard production during the restriction period. But there is also little doubt that this increase was partly, if not mainly, due to restriction, in

the sense that if there had been no restriction scheme it would not have occurred; this matter will be considered in detail in Section VI. Even making some allowance for this, however, it is possible that the statistics of standard production under-represent the probable potential production. On the other hand, it may also be argued that if there had been no restriction scheme, tapping would perforce have been continued at an unduly high rate, and that from 1926 onwards even the standard production could not have been realised. Any estimate of potential production after 1925 thus becomes increasingly dubious and difficult, and the second half of the table should not be made the foundation of too serious argument. It has, indeed, been included only with considerable misgiving and mainly for the sake of completeness, though it may be observed that the chance that potential production has been over-estimated is most probably no greater than the chance that it has been under-estimated. the following table, therefore, the potential production of Malaya for 1922-23 has been put at the actual standard production of 1923-24, and the potential production in 1927-28 at the standard production of 1926-27, since the reduction of standard production in 1927-28 was almost certainly arbitrary, as will be explained below; for all the other years the potential production has been taken as the standard production, and throughout the whole restriction period this applies to Ceylon. The table on the opposite page shows the potential production of Malaya and Ceylon in comparison with their actual exports for the calendar years, and the excess is then added to the total world exports for comparison with world absorption.

When the Stevenson Committee began their deliberations in November 1921, they estimated that on January 1, 1922, surplus stocks (i.e. over and above the stocks of convenience) would amount to 100,000 tons, and that by January 1, 1923, this surplus would be doubled. It seemed to them that production was a great deal in excess of the probable demand in the immediate future. Actually, as they realised by the time that they composed their second report, consumption was rapidly increasing as the U.S.A. recovered from the depression of 1920-21, and had almost caught up production, though allowance must be made for the continuance of voluntary restriction by some British estates during 1922. Broadly speaking, however, when restriction began, production

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Potential Pro- duction, Malaya and Ceylon.	Actual Exports, Malaya and Ceylon.	Excess of Potential Production.	World Export * + the excess of potential pro- duction in Malaya and Ceylon.	World absorption.	Excess of World potential pro- duction over actual absorp- tion.	Excess of actual supplies over actual absorp- tion.
			Thousand Tons.				
1922 1923 1924 1925	307 309 343	238 220 256	6 9 89 87	410 486 527 615	390 435 470 560	20 51 57 55	$^{+10}_{-28} \\ ^{-42}_{-42}$
1926 1927 1928	385 408 410	345 297 357	40 111 53	662 728 720	545 600 680	117 128 40	+77 + 7 - 23

^{*} Some allowance must, however, be made for the fact that many British estates in Java and elsewhere were voluntarily observing the restriction scheme. No accurate allowance can be calculated, and therefore an addition of 10,000 tons has been made to world exports on this account for each year except 1926 when the export allowance was 100 per cent. during three-quarters of the year. It is also fairly certain that N.E.I. native output was not at its potential in 1922.

and consumption were nearly in equilibrium,† and the only real trouble was 100,000 tons of surplus stocks, the true burden of which was being rapidly reduced as consumption increased. This is the basis of the American argument that restriction was really unnecessary, because the trouble in 1921-22 was not primarily excess producing capacity, as the Stevenson Committee implied, but a temporary decline in consumption which had almost passed away by the time restriction was im-The validity of this argument may be admitted, and with the admission goes the essential part of the case for restriction as presented by the Stevenson Committee. But this equilibrium at the end of 1922 was very short-lived, not because consumption declined again, though the 1922 rate of increase was not maintained, but because production was expanding even more rapidly than consumption. In their first report the Stevenson Committee stated that in their opinion "consumption is not likely to overtake potential production for some years." If this forecast was wrong, it was wrong in the letter only, but the Committee should have stressed that the cause would lie in the future increase of productive capacity and not in any failure on the part of consumption.

At first sight the excess of production from 1923 until 1927, as shown in column 6 of the

necessity for restriction absolutely self-evident. But these figures require modification. In the first place, restriction undoubtedly affected the volume of stocks carried by merchants and manufacturers. During the first three-quarters of 1923 stocks in the hands of American manufacturers remained more or less constant at the same level as in the past three years, despite the increase in absorption. At the end of 1921 many of them had perforce come largely under the thumb of their bankers, and the bankers insisted that since their troubles had been mainly caused by huge losses on stocks and forward contracts, they should drastically reduce the ratio of stocks which they had been in the habit of maintaining. This, however, is hardly an adequate explanation for the absolute reduction of stocks during 1924, which must be attributed either to a deliberate attempt to "break" restriction, or to the conclusion that with the percentage at or below 60, there was plenty of rubber readily available even under the restriction scheme. If the American and British manufacturers had even maintained their stocks at the 1923 level, there would have been a significant increase in net imports, and much of the excess of world potential production over actual absorption (col 6 in above table) would have been required for the maintenance of the American manufacturers' stocks. Moreover, the statistics of world absorption represent only net imports for all countries other than the U.S.A. and the U.K., and no account is taken of their invisible stocks, which were also certainly reduced. As a true measure of actual absorption, the statistics in col. 6 require to be increased slightly on this account during 1923 and 1924, and reduced in 1925 when these depleted invisible stocks in Other Countries were rebuilt. Finally, it is possible that actual world absorption would have been slightly

higher during 1923 and 1924 if the price had

above table, seems so great as to make the

† As the *Times* realised on September 19, 1922: "An equilibrium of supply and demand appears already to have been established." See also the issue of October 12: "The scheme has been produced rather late in the day, for since the Committee was appointed the aspect of the rubber market has completely changed." It may be remarked in passing that the *Times* was consistently hostile to restriction from the start, though this in no way detracts from the validity of these particular observations.

‡ The Committee appears to have been greatly impressed by the increase in mileage per tyre resulting from the substitution of the cord for the fabric tyre which had taken place during 1919 and 1920; more rubber was required in the manufacture of the cord tyre, but its wearing qualities were much greater, and therefore the replacement demand was rapidly declining. Actually this factor made little difference owing to the unexpectedly rapid development of the motor industry and of

road transport.

been, say, about 10d., though manufacturers have repeatedly declared that within reason, consumption is little affected by the actual price of crude rubber. Taking these and other points into consideration, it seems doubtful whether in the absence of restriction there would have been much increase in the outstanding 100,000 tons of stocks during 1923 and 1924, and there might even have been some reduction.

In 1925 it is certain that the high price brought about heavier production by all producers not subject to the restriction than would have been the case at lower prices, and thus, though the true world absorption might have been smaller than the figure in col. 6 for the reason given above, this would have been balanced by a smaller actual production. On a world consumption of, say, 540,000 tons, the eight months' equivalent stocks required for convenience according to the Stevenson Committee amount to 360,000 tons. It would not, however, be reasonable to regard this ratio as unchanging. In 1921 the world's shipping was still somewhat disordered as the result of the war, whereas in 1925 an ample supply of tonnage was available, no congestion existed at the ports, and in general the speed and certainty of transit was much greater. Further, it must be appreciated that as a defence against the operations of speculators a smaller proportionate volume of stocks will suffice as the volume of consumption increases, for the supply of speculators and their resources is not unlimited. Hence to-day a six months' ratio is generally considered adequate, and in 1925 not more than seven months would have sufficed. Even a seven months' ratio, however, meant a total amounting to 315,000 tons, which would have been approximately the total stocks in existence in 1925, supposing that there had been no further addition during 1923 and 1924, as has been argued above. It seems, therefore, reasonable to suppose that during 1925 equilibrium would have been re-established between demand and supply, and stocks would have become normal; the price might therefore be supposed to have risen to a reasonably profitable level. During 1926 the lower, though still high, prices almost certainly again led to a larger production than would have resulted at a price-level a little above 1s., while the actual decline in world absorption was certainly due to the effects of high prices both on consumption and in stimulating the use of reclaimed rubber,*

as well as to the campaign for rubber economy in the U.S.A. Consumption might still have failed to equalise production, but making allowance for the correspondingly higher level of necessary stocks, the excess of supply would not have been at all considerable. The same sort of considerations apply to 1927; consumption might perhaps have reached 630,000 tons, while production might not have much exceeded 680,000 tons; the discrepancy would have been bigger than in 1926, but not so great as to create The figures in the table for 1928 are a crisis. misleading in several ways; world exports were swollen during November and December by abnormally heavy shipments of stocks accumulated during the previous months while restriction was a-dying; equally world absorption would have been greater if invisible stocks, as well as visible stocks, had not been heavily drawn upon. To suggest that consumption was drawing ahead of even potential production is little more than guess-work, though it is quite in line with the course of events in 1929. Any surplus stocks accumulated in 1926 and 1927 would, however, almost certainly have been sur-

plus no longer.

It must be admitted that these suppositions, especially after 1925, are largely a matter of guess-work, but the considerations which have been advanced will at least serve to undermine any hasty conclusions as to the necessity for restriction which might be drawn from calculations such as those in the table above. Broadly speaking, the odds are that without restriction the rubber producing industry would have had a difficult time in 1923, and probably, though to a lesser degree, in 1924. By a difficult time is not meant a continuation of the highly critical conditions existing during the summer and early autumn of 1922. The price-level of 7d. to 8d. then ruling was certainly well below the costs of a substantial part of the production at that time, and its continuance would have spelt widespread bankruptcy to producers in almost all countries. But such a price-level could not have continued much longer in the face of the revival of consumption, even with the existing accumulation of surplus stocks. The fact that the announcement of restriction had such an effect on prices shows that the market was only waiting for some such initial stimulus, for though admittedly speculation played its part, this would not have been so effective if manufacturers had not been short of supplies. The trouble in 1923 was, and would have been in the absence of restriction, the surplus stocks; their existence might have kept down prices just too long for the resources of producers; and the recourse to restriction must find its justification

^{*} If there had been no stimulus to the use of reclaimed rubber, its consumption might have been, say, 100-120,000 tons in 1926 instead of 164,000 tons, and, say, 120-140,000 tons in 1927 instead of 190,000 tons. Consumption of crude rubber would therefore have been considerably larger on this account alone. On the general subject of reclaimed rubber, see page 54.

largely on the ground that it ended such a danger. Once over this difficult time in 1923, there would have been steady improvement during the next two years, to a profitable and reasonably stable basis in 1925–26, and if 1927 had seen stocks mounting somewhat, 1928 would probably have seen the movement reversed. The case for restriction seems therefore to rest on the extent of the damage which would have resulted if, under the weight of the surplus stocks, prices had failed to rise for, say, another six or nine months to the level of rod. which was probably about the level of marginal costs at that time.

When the problem is thus narrowed down to its true extent, there is obviously room for differences of opinion. Consideration must be given to the various groups which make up the rubber producing industry of Malaya—European estates, Asiatic estates, and Malay smallholders—while the point of view of the F.M.S. Government must also receive attention. There can be no doubt that at the time the European companies * as a group were in a state of desperate anxiety, and full of fears lest they should be unable to carry on, and therefore have to sell their properties at knockout prices, or close down with the prospect of much costly reclamation work if and when prices recovered to a profitable level. Even looking back, many responsible men maintain to-day that without restriction in 1922 at least 20 per cent. of the estate acreage would have been abandoned, while there seems little doubt that American capital was only waiting for prices to fall a little lower before making substantial purchases. On the other hand, equally responsible opinion now inclines to the view that such fears were exaggerated because the full extent of the recovery in the American demand was not realised sufficiently quickly. Probably the truth lies somewhere between the two; it certainly seems likely that some acreage would have been abandoned, and that some estates would have changed hands, but it is doubtful whether the estate industry as a whole would have suffered as badly as many other industries suffered during the world depression of 1921. The Malayan dollar companies would probably have been harder pressed than the sterling com-panies, for the latter as a group had been pursuing a more prudent financial policy in respect of reserves, etc.; this partly accounts perhaps for the fact that Malaya was much more solidly in favour of restriction than London. But the necessity, or even perhaps the advisability of restriction is certainly

difficult to justify if the European companies only are considered.

The position of the Chinese estates * was, however, much more acute, and this weighed heavily with the F.M.S. Government. The difference between European and Chinese business methods is considerable. In the first place, probably 90 per cent. of the Chinese estates and holdings are one-man concerns. Secondly, while a Chinese must have sufficient capital to cover the costs of the opening-up and planting, he does not wait until he has capital to finance the costs of the five to six years' period of waiting for the trees to grow. He plants, hoping to be able to finance a large part of the waiting period out of current annual savings from his existing source of income, and to be able to borrow the balance required; hence most Chinese estates are in debt before production actually begins. He borrows where he can, but there are three chief sources:

I. From shopkeepers, largely in the form of credit for food and materials. A number of estates, even under normal conditions, pass into the hands of shopkeepers by default on these advances. Usually Chinese shopkeepers put their savings into their shops, and not into tin or rubber, but in this way a good many of them have, so to speak, perforce become owners or part-owners of rubber estates, and even tin mines.

2. From the banks. The banks in Malaya are mainly exchange and not mortgage banks, but they will accept mortgages on house property, etc. Since they insist on good security, their rates are relatively low (say 7–8 per cent.), but for the same reason they provide very limited amounts. Hence the Chinese must usually have recourse, sooner or later, to borrowing

3. From the Chetties or professional moneylenders. The small Chetties are much like the pawnbrokers of Europe, but there are many big firms, which are really better described as "financiers." These latter have played a very important, and perhaps both necessary and beneficial, part in the economic development of Malaya, because they have been prepared to take risks which the banks would not take. Their usual method of business is to borrow from the banks on their own capital resources at, say, 7–8

^{*} In 1922 rather under 55 per cent, of the planted area was in European ownership.

^{*} Most of the holdings between 25 and 100 acres are Chinese owned, as well as practically all the Asiatic owned holdings above 100 acres. Rather under 20 per cent, of the planted area in Malaya was therefore in Chinese ownership in 1922.

per cent., and then charge their clients perhaps 12 per cent. in ordinary times and 15 up to 25 per cent. in bad times. These rates appear high, but their clients have seldom much security to offer, for any good security will already have been pledged with the banks; hence the Chetties have few small risks to balance many large risks.* The Chetties, of course, lend to shopkeepers as well as for industrial purposes, and the Chinese rubber planter in 1922 was as likely as not indebted to the Chetty, not only directly but also indirectly through his indebtedness to the shopkeeper, who in turn had borrowed from the Chetty.

Any general trade depression inevitably shakes this elaborate but flimsy credit structure to its very foundations, and even if the depression is confined to rubber, the same is true, for as a broad generalisation it may be said that one-half of the Chinese industrial investment in Malaya is now in rubber estates.† By the autumn of 1922, the Chetties had already foreclosed on Chinese rubber estates to the extent of probably 20,000 acres, and there can be little doubt that there would have been widespread ruin among the Chinese community in general, not only rubber estate owners but also the shopkeepers, merchants, traders, etc., if there had not been a very rapid recovery in the price Whether such a general financial collapse could have been more or less staved off for another six months is a moot point, but there are many leading Chinese, and also British Government officials, who maintain that conditions were so critical that it was a question of days rather than weeks before the Chinese banks would have collapsed as well as their individual clients.

The position of the Malay small-holders ‡ was in a sense much less serious, since the law prevents any but a Malay owning land within the reservations, and since the village moneylenders are seldom Malays, these small-holders cannot be deprived of their rubber trees or their essentials of life.§ The Malay small-holders would have survived the crisis in their own way,

* It is true that if the borrower's security, plus all his assets, is insufficient to pay up the loan, the Chetty still has a hold on all his future earnings. But though this provision is by no means a dead letter, it is obviously difficult and usually somewhat expensive to apply.

† Twenty years ago, rubber was, of course, negligible, and tininvestigate of the Chinese industrial investment. But the Chinese industrial investment. But the Chinese interest in tin has fallen relatively, and will probably continue to decline.

† Practically all the holdings under 25 acres. Together these formed in 1922 about 30–33 per cent. of the total acreage under rubber in Malaya.

§ Not all Malaya.

§ Not all Malay-owned rubber is within Malay reservations, but the greater part is, and of course the rice fields, which produce the Malay staff of life, are completely protected.

and as a group they need not be very seriously considered in this connection; restriction made them much more wealthy, but laissez-faire could not have damaged them as it might have damaged the Chinese rubber interests, and through them, directly and indirectly, the whole economic well-being of Malaya.

The strongest argument in favour of the advisability, if not the necessity, for restriction, is that the credit structure of the Chinese community could not have stood the strain much longer. If the Chinese planters had not had so much immature rubber on their hands, their position would have been much stronger, as, for example, is the case to-day; but the depression had come at a most difficult time, for they had been planting heavily from about 1916 onwards, and their credit resources in 1922 were stretched to their utmost capacity.* By itself the ruin of the Chinese planters would not perhaps have been of such consequence as to justify restriction, but this could not have taken place without involving ruin to the Chinese community as a whole. There is no doubt that the Malayan Government were impressed by the seriousness of this aspect of the position, and it is known that they advised the Colonial Office in favour of restriction early in 1922, if not before then. This is not to say that they were not perturbed about the position of the European estates. Two factors in particular weighed with them—first, that if estates were abandoned, their Indian labour staffs would have to be repatriated at Government expense, and secondly the fear of disease spreading from abandoned estates and native holdings throughout the country. In addition there was the prospect of a serious depletion of Government revenues so long as the depression continued. But the Colonial Office had apparently declined to take action until the Stevenson Committee had reported, and while Dutch co-operation was in doubt. In September the F.M.S. Government, and indeed Malaya as a whole, had given up hopes of any effective restriction measures, and was gloomily waiting the inevitable; the Stevenson Committee's second report, and the Colonial Office decision to impose restriction, was a surprise as unexpected as it was welcome. The Secretary for the Colonies almost certainly changed his attitude towards restriction during the late summer and early autumn of 1922, but since the question of Dutch co-operation was undoubtedly a most important factor in the whole situation, it will now be as well to give attention to this matter.

^{*} The same applied to numerous British estates, especially some of the dollar companies, but their financial resources were of course more stable and substantial.

On the question of the necessity and advisability of restriction, my conclusions are therefore that while its absolute necessity may be subject to some doubt, a strong case can be made out on the score of advisability, especially in view of the situation in the Chinese community. A comparatively light and temporary form of artificial control finds justification on these grounds; such a scheme, removed in, say, 1924 or 1925, could have done but little harm, and might have avoided appreciable loss to the European plantation industry, and great loss, if not real disaster, to the economic life of Malaya. But a more important conclusion, or lesson, which emerges from this study of probabilities and possibilities, is that if restriction had been introduced promptly in November 1921, instead of twelve months later, it would have made possible the absorption of the 100,000 tons of surplus stocks during 1922 or early in 1923. In other words, restriction was primarily wanted to counter the temporary decline in consumption; it should have been used as a preventative rather than as a remedy. In the opinion of many people, the big mistake was that "restriction was kept on too long," but a bigger mistake was that some form of control was not imposed earlier. This matter also will receive further consideration in the next section.

(2) The Refusal of Co-operation by the Dutch.

The refusal of the Dutch Government to participate in any form of restriction is not easily explicable, nor is the attitude of the Dutch estates. In Great Britain the popular explanation is that the Dutch were sufficiently shrewd to realise that restriction would be imposed in British territories despite their refusal of co-operation, and that this would be extremely satisfactory and profitable to themselves; in other words, that their refusal was dictated by the most narrow and exclusive self-This explanation may be broadly true as applied to the Dutch attitude in the later years of restriction, but it is certainly not applicable to 1922, and no well-informed person would give it the slightest credence. In the first place, the Dutch planters fully realised the gravity of the position in 1922, and were quite as worried as the British planters, and secondly there is no reason whatever to doubt the genuine character of their complete surprise when the British Government decided to take the plunge on its own.

The explanation most commonly given in Mincing Lane runs along the lines that the

Dutch talk about the laws of economics was simply "eve-wash," the real reason being that the Dutch estates absolutely refused to entertain the idea of restriction on the output of estates only, because they feared the competition of the native producers in Sumatra, Borneo, etc., and the resulting stimulus to new native planting; hence the necessity for some Government scheme of compulsory restriction on native as well as estate production. A scheme of restriction, such as that proposed for Malaya by the Stevenson Committee, was, however, absolutely impracticable. In Malaya, a relatively good customs administration had already been built up, primarily to stop opium smuggling, but also accustomed to operating export taxes on tin and rubber, and in Malaya there was a relatively complete land survey, registration of land titles, a recently taken census of rubber areas and an adequate staff of district officials, thus making possible the internal administration of assessments, quotas, etc. In the Outer Possessions of the N.E.I. (i.e. other than Java itself), however, the whole control of the Government was so extremely slender that any regulation of actual production was utterly impossible either to initiate or to enforce. Some scheme of rationing the bigger dealers at the principal ports might have been introduced, but this would have meant that the dealers would have bought their quota from the first native sellers who offered or from favoured sellers, and the remaining sellers would then have been unable to sell their rubber at all; the result would have been revolution. Any control of exports would have involved minute price-control. It must also be remembered that native unrest is a very real factor in the N.E.I. In short, the explanation is that the Dutch Government simply could not operate an effective restriction scheme, and since they naturally did not like to publish this abroad, they took refuge in pseudo-economic platitudes.

In my opinion, however, this line of explanation is in certain respects erroneous, and its general tenor is definitely misleading. too much coloured by the influence of subsequent events not foreseen as early as 1922. Thus from my recent inquiries in Java, not only from Dutch officials and Dutch planters but also from British residents, I am satisfied that no one in Java was paying much attention to native rubber as early as 1922; it was not until the end of 1923 and the beginning of 1924 that the Dutch began to suspect the potential importance of native rubber, and the results of the preliminary investigations were as surprising to them as they were alarming. official reckoning of native rubber exports in 1922 was only 17,000 tons (dry-weight), and no one anticipated the rate at which the supply was increasing. In 1922 the Dutch estates were not in the least worried about native rubber, and this factor did not influence their attitude towards restriction in the slightest degree.

If this is correct, restriction in the N.E.I. would have been confined to the estates, and it follows that so far as the Dutch Government was concerned, their part would have been to coerce a recalcitrant minority. The administration of such a scheme might have been a troublesome addition to the normal business of government, and the idea would not have been welcome in official quarters in Java any more than the British scheme was welcomed by the Malay Civil Service, but there would have been no insuperable difficulty or objection so long as the scheme was confined to estates, and no attempt was made to include native production. It may therefore be presumed that if a large majority of the Dutch estates had been strongly in favour of restriction in co-operation with the British industry, the Dutch Government would have agreed to coerce the minority by instituting a compulsory scheme. Of the existence of a minority absolutely opposed to restriction there can be little doubt, and therefore a compulsory Government scheme was necessary; the whole question therefore turns on whether a majority of the Dutch planters was in favour of a compulsory Government restriction scheme. My conclusions are that there was no such majority. In the first place, at least half of the leading men in the industry hold *laissez-faire* doctrines as an integral part of their economic philosophy, and hold them with the religious conviction of Englishmen in the early nineteenth century, while in official quarters the then Director of Agriculture in Java was most vigorously opposed to any attempts at artificial control of supplies or prices. The idea that this belief in competitive laissez-faire is insincere, and a mere garb of convenience and good business, reveals a complete lack of understanding of the whole character and outlook of the Dutch as business men. The case of chinchona bark, which is so often quoted as evidence that the Dutch pay a mere lip-service to laissez-faire, is definitely a special case; the Dutchman of to-day does not hold the laissez-faire doctrines of a century ago, even if he holds the modern version as fervently as our forefathers held their version. shortly, his modern version of laissez faire is that there is an exceedingly strong presumption against any artificial restraint of trade, and that unless the virtue of a particular form of restraint is supported by indisputable evidence,

it stands condemned, even though its weakness or undesirable results cannot be clearly foreseen or demonstrated. In other words, there must be a strong positive, and not merely a negative case. Thus the Dutch planters had an instinctive belief that rubber restriction was bound to lead ultimately to unsatisfactory developments, even though in 1922 they could not even guess what these developments might be. Their attitude was essentially instinctive rather than rational, and was thus extremely open to misconception.

But this instinctive hostility to restriction was powerfully reinforced by their rooted objection to Government intervention in industry. As has been said, a Government compulsory scheme was inevitable in order to coerce a militant minority. It must be remembered that business in Java has a long and comparatively recent history of struggles to be free of Government control, and this has left its mark on the attitude of the present generation; moreover, the greatest industry, sugar, is even to-day almost at daggers drawn with the Government over the land policy and the native question generally. During the war the rubber industry had been considerably annoyed by various interventions on the part of the Government, while more recently an export tax on rubber had been imposed, nominally to create funds for the compilation of statistics, though in the end the rate of tax had been fixed very many times higher than the Government had said it would be.* Hence the planters not only disliked the whole idea of government interference with their industry, but happened at the time to be specially nervous lest they should again be fleeced, or that somehow the Government would gain at their expense.† These feelings were greatly strengthened, however, by their belief in an alternative policy, namely, that all would be reasonably well with rubber, as it was with sugar, if only they had a central selling organisation such as the sugar industry

^{*} The tax was never, in fact, payable owing to the failure of rubber prices to reach the stated minimum, and another and general scheme was substituted in 1924. But the planters could not, of course, know this in advance, and the cause of their irritation was the same, even though their pockets were actually to be unaffected.

[†] Compare, for example, some remarks of Mr. M. Sanders at the International Rubber Conference 1924. He said that he was one of the few Dutch members of the Association for Rubber Cultivation in the N.E.I. who was in favour of restriction, "The greater part of the Dutch members of the Board (of the Association) have been of a different opinion, and their way of looking on the business is, in the first instance, that they are so much opposed to every form of government interference that they will not come into it (the Stevenson Scheme). This applies to all Government interference. We have come to the conclusion at the Hague that Government interference has in the latter years been mostly to our detriment, so we are much opposed to it. The objection to Government interference is, I consider, the most important cause of my countrymen having stood out."

possessed in the Vereenigde Javasuiker Producenten.* In 1922 this idea had not yet taken definite shape or form, but many rubber companies were inclined to believe that this was a far better line of advance than any form of Government control, and it was certainly a

factor in the problem.

So far as I can gather, therefore, it is most unlikely that even a bare majority of the industry was ever in favour of restriction. It is true that the Dutch Rubber Growers' Association at the Hague requested their Government to appoint a committee of investigation, similar to the Stevenson Committee, but there is no evidence whatever to warrant the interpretation that this meant a majority in favour of restriction, and there is no evidence that when the Dutch Minister of the Colonies refused to appoint such a committee, the Association was seriously annoyed. Hence, while I agree entirely with the proposition that the Government of the N.E.I. could not possibly operate a restriction scheme such as the Stevenson scheme, in my view this consideration is really irrelevant, because restriction in the N.E.I. never really meant more than restriction of estate production. Admittedly even this might have meant a severe tax on the Dutch administration and would probably have created a host of awkward problems, but it seems likely that the Government of the N.E.I. would have made the attempt if a large majority of the industry had been in favour. The reverse, however, was the case, though not for reasons of self-interest and cupidity such as the British public imagined. Later on, the attitude of the Dutch changed very considerably, and this will be considered in due course below.

It will be convenient to discuss under this heading the results of the refusal of co-operation by the Dutch, and the subsequent change of opinion as to its absolute necessity by the Stevenson Committee. The desirability of Dutch co-operation was obvious, but was it in fact reasonable to proceed when it could not be secured? The answer to this question depends fundamentally upon the expected duration of the control. The Stevenson Committee feared that it would be "some years" before an equilibrium between production and consumption was restored, and therefore they may be said to have expected that control would be necessary for some years also. Restriction would increase British costs per lb. of rubber produced, and, therefore, merely to cover these increased costs, the price would obviously be such as would yield profits to Dutch producers on full production, assuming their costs to be

not much above costs in Malaya.* If restriction was tightened sufficiently to give profits to the marginal producers in Malaya, the Dutch producers would make very handsome profits indeed. But owing to the long period of gestation—about six or seven years—no new planting could result in increased production within that period; to that extent restriction was safe enough. But this is a short and incomplete view. If restriction stimulated new planting, there would ultimately be an increased production, and therefore equilibrium must be re-established and restriction removed before that time, while these new producers would have to be allowed to supply the increase in demand during the next few years, or otherwise conditions of excess supply would be continued, and restriction be indefinitely prolonged. The Stevenson Committee's fears were certainly justified from the long period point of view. Actually the phrasing of their first report suggests that their main concern was that the Dutch would benefit in the short period at the direct expense of British producers, and that they were not over-anxious about the long period, even though it certainly appears that they expected a necessary duration of restriction for some years. There is here a contradiction—if the scheme was to last for only one or two years, the Dutch would certainly benefit at the expense of the British, but there might still, and probably would be, a net balance in the latter's favour; the Committee's grounds for insisting on Dutch co-operation were not substantial on this hypothesis. But their hypothesis was, in fact, that restriction would last for several years, and here the temporary enrichment of the Dutch during restriction would be insignificant compared to the sacrifices which British interests might well be called upon to make in the form of self-denial in respect of new planting until consumption had increased beyond the increased output of the new Dutch plantations. The only explanation is that the Committee felt that Dutch planting was unlikely to be really extensive so long as the price of rubber did not much exceed 1s. 3d., and in view of the general outlook that consumption would not catch up productive capacity for some years; if and when that outlook changed, restriction would have done its work, and could be removed. Due weight must be attached to such conclusions, for, in fact, the amount of new planting by Dutch estates, while considerable, has not been such as seriously to undermine the supremacy of British producers.

^{*} See Part II. of the first memorandum in this series.

^{*}There is some evidence to suggest that estate costs in Java averaged higher by about Id. per lb. than estate costs in Malaya in 1922–23, but the position is probably nearer the reverse at the end of the restriction period.

It is the Dutch native industry, and not the Dutch plantation industry, which has proved the villain of the piece from the British point of view, and as has been said, neither British nor Dutch producers were paying any serious attention to the Dutch native production in 1922.

The whole question must, moreover, be viewed from a rather different angle, especially in respect of the change in the attitude of the Stevenson Committee. As has been said, the desirability of Dutch co-operation was obvious, and their first report was strongly worded for the equally obvious reason that any hint that Great Britain might take action alone would have been fatal to the success of efforts to bring about such co-operation; the Dutch could not have failed to realise the advantage to themselves if Great Britain acted alone. Moreover, it seems more than probable that the Committee's first report was actually written in November 1921, and presented by the Chairman to the Colonial Secretary substantially in the form in which it was eventually published in May 1922, with the exception of the last two paragraphs, which were added when publication was decided upon. If this is so, consideration must be given to the fact that in November 1921 the general outlook was much worse than it was six months later, but even then the gap between probable production and consumption seemed so great as to necessitate Dutch co-operation if restriction in British territory alone was not to be impossibly severe. By the autumn of 1922 the outlook had greatly improved; there was still a gap, but it was not so great, and there was something to be said for the idea that restriction by British producers alone might now be sufficient to bridge it. In the early part of 1922 no one foresaw the developments which were on the threshold, and thus the Committee persisted in their efforts to secure Dutch co-operation because that seemed a genuine necessity for the practical success of the scheme. Without some such hypothesis, the delay between November 1921 and the final refusal of the Dutch in July 1922 seems inexplicable. The Committee must have realised very early in 1922 that the chances of Dutch co-operation were remote, and yet they continued a more or less hopeless crusade, while daily, stocks continued to pile up in ever increasing quantities, and the opportunity of using restriction as a preventative rather than as a cure was passing away. If the Committee's first report was really written in November 1921, it is clear that they realised the importance of immediate action. It is now clear that when their first overtures to the Dutch had been refused, the Committee should have boldly

advised in favour of immediate restriction, for though this might have amounted to "carrying the baby" for the Dutch, the scheme would have quickly done its mainly preventive work. There would have been little new planting, and any sacrifice by British producers would have been out-balanced by the advantages achieved. But this savours too much of wisdom after the event, and neglects the extreme pessimism which reigned in the early part of 1922, and which was not without its contemporary justification. The only other explanation is that the Committee could not stomach putting any money gratuitously into the pockets of their competitors, and that it took them nine months to reconcile themselves to such an abhorrent Such feelings very likely played their part, but the main reason more probably lies in the improvement in the outlook during the summer of 1022, and its effect in converting the Committee to the belief that restriction without the Dutch was daily becoming a more reasonable proposition, and one which could be commended with at least a fair chance of practical success. Actually the general idea that the task of restriction was easier at the end of 1922 than it had appeared twelve months previously should have been qualified by the reflection that, in fact, the great opportunity had been lost, and the surplus stocks were still hanging round the industry's neck. With this incubus, the annual increase in the world's potential capacity was much more serious than it would otherwise have been, and the task of restriction was in fact much more difficult in November 1922, than twelve months before. Hence the importance of Dutch co-operation had really increased, and not decreased. This, however, does not alter the proposition stated above that some form of restriction, even in November 1922, would have resulted in a net advantage to British producers irrespective of the attitude of the Dutch.

At this point the attitude of the British Government towards the whole idea of restriction, and especially after the attitude of the Dutch was definitely known, must be briefly considered. It would have been a perfectly reasonable procedure for the British Government, after receiving the Committee's first report, with its insistence on the necessity of Dutch co-operation, to have called the whole matter off when that co-operation was refused. To allow the representatives of the industry to go back upon their cardinal principle, was an act of considerable grace, though possibly of mistaken grace. It is fairly certain that the Colonial Office, even under Mr. Churchill, was never actively in favour of restriction, and it was only the insistent demand of the industry which secured the appointment of the Committee in the first instance. Since in my opinion the Committee were correct in revising their idea of the essential character of Dutch cooperation, it follows that the Colonial Office were right in accepting the revision if they considered some form of control was really advisable. But if they did not, they now had a plausible loophole for escape. That they did not avail themselves of this chance suggests a change of attitude towards the whole idea of restriction. It is perhaps significant also that a period of two months elapsed between the refusal of the Dutch and the publication of the Stevenson Committee's second report, while, when it appeared, it was accompanied by the announcement of its acceptance by the Government; there is here a suggestion that the Committee had some difficulty in persuading Mr. Churchill to give his approval. Mr. Churchill appears to have performed a volte-face towards restriction in general almost as complete as that of the Stevenson Committee towards Dutch co-operation. But why he did so, at present remains a mystery. It is possible that the effect on the American exchange exerted some influence, for in a statement in March 1923 * Mr. Churchill laid considerable stress upon the point that "one of our principal methods of paying our debt to the United States is in the provision of rubber," and added that when he brought Lord Stevenson's scheme before the Cabinet, he was "strongly supported by the then Chancellor of the Exchequer, Sir Robert Horne, and the Treasury." But this statement cannot properly be made to suggest that the Treasury applied pressure upon Mr. Churchill to bring the scheme before the Cabinet, or that this aspect of the matter was a decisive factor in his decision. It is fairly certain that he received no fresh advices from Malaya, such as would convince him of the necessity for intervention: the Malayan Government had shot its bolt long before. Perhaps it was another case of sheer persistence, and that eventually Mr. Churchill yielded to the persuasions of Lord Stevenson for the sake of peace and quiet. That the assent was of a rather grudging character, may perhaps be judged by the fact that the Colonial Office during the first years of restriction left the whole business as much as possible to the industry and its representatives, merely giving the necessary effect to their desires. This saved the Government a lot of trouble and much responsibility, even if it was not a very dignified rôle. When later on the Government did take a hand in the game, the

* See Evening Standard, March 12, 1923.

pitch was already so treacherous that no conclusions can be drawn as to whether or not a more active rôle in the earlier years would have been an improvement.

(3) The Machinery of the Restriction Scheme.

(a) Mechanical versus Arbitrary Regulation.

It is a question of vital importance whether the regulation of restriction should have been on an arbitrary basis or on the fixed mechanical basis actually adopted. The great defect in the mechanical regulation of restriction was its lack of elasticity; it depended for success to a very large extent on the financial ability, shrewd judgment and general co-operation of the consumers of raw rubber. The American manufacturers pointed out the possible dangers of its inelasticity in respect of more rapid releases should the world's demand suddenly increase, and laid stress on the opportunities which would arise for speculation if such a temporary shortage should arise. The R.G.A. delegation which visited America in January 1923, and also Lord Stevenson and other members of his committee, probably realised the possibility that the initial percentage exportable might have been fixed too low in view of the rapid revival of consumption during the winter of 1922-23; and if prices had got out of hand in the early summer of 1923, the percentage might have been arbitrarily raised in order to ensure a proper start.* But the Colonial Office and the British industry appear to have failed to realise that the lack of elasticity was a chronic weakness in the scheme, which might manifest itself at any future time, even when the scheme had perhaps been functioning smoothly for a considerable period. When in 1925 the need did arise, the leaders of the British industry could with a show of justification cast the blame on to the Americans, and they therefore turned a deaf ear to all appeals for emergency releases, while the general opinion was that it would be foolish to forego such an unexpected harvest for the benefit of those who for so long had enjoyed cheap rubber at the producers' expense. Equally the Colonial Office took no action until December 1925, when an additional 5 per cent. was granted as from February 1, 1926, by which time the peak of the boom was already passed. This additional release had, in fact, no effect whatever at the time, for Malaya could not produce its standard production on account of a depleted labour force, etc., thereby demonstrating a physical as

^{*} For further explanation and discussion of this point, see Section IV, p. 50.

well as a merely mechanical inelasticity in the

The real point, however, is not the failure to give additional releases when required, but rather that, if they had been given, the mechanical basis of regulation would have been exchanged for an arbitrary basis, and the great advantage of a mechanical scheme would have been lost. This advantage was that all concerned —producers, dealers, merchants, manufacturers —did at least know where they stood, whereas under an arbitrary scheme, nothing would have been certain. If additional releases had been made in 1925, there was no certainty that additional restrictions might not have been imposed later; the justification of an emergency depends upon the definition of an emergency, and that would have been in the hands of the British Government and/or the R.G.A. There is, in fact, no possibility of compromise such a scheme must either be mechanical or it must be arbitrary—and in 1925 the British Government acted wisely unless it was prepared to jettison mechanical regulation altogether.

The uncertainty of an arbitrary scheme is a great drawback. Its effect is chiefly felt in the refusal of speculators * to carry stocks; they simply dare not do so when there is no certainty as to the quantity of supplies which may be forthcoming in the near future.† In the case of rubber, stocks to the equivalent of eight months' consumption were considered the necessary normal, and in 1922 there was one-third more. An arbitrary scheme might well have had disastrous results at the start, if some provision had not been made to relieve the ordinary trader of his stocks, though admittedly a large proportion is carried by manufacturers. Again, an arbitrary scheme involves the appointment of an individual or a group of individuals to make the necessary decisions. This is a colossal responsibility, which few men would care to undertake. it is still more unlikely that any industry would care to allow any outsider to undertake such a task. In practice, the task could only be undertaken by the Government, and in the normal way the industry would strongly object to the removal of its destinies out of its own hands, while equally no Government would take such responsibility except under the sternest compulsion. When Governments have played an active part in artificial control schemes, as, for example, in Brazil, they have usually had recourse as far as possible to mechanical forms of regulation. The impracticable character as

Agency of 1928-29.

well as the uncertainty of arbitrary schemes are

very great drawbacks.

The mechanical principle is undoubtedly superior provided that it is possible to secure a reasonably sufficient degree of elasticity. This, however, was a very difficult problem in the present instance. The revised scheme releases, introduced in 1926, was an attempt in this direction, but it may well be doubted whether it would have been a sufficient improvement; no adjustment of figures could probably have produced the desired result without weakening the scheme too much from the producers' point of view. If it had been possible to have a system of monthly instead of quarterly quotas, a much greater degree of elasticity would have been secured. So far as estates were concerned, this would have presented little difficulty, but it was almost a physical impossibility in respect of the native holdings. As it was, it took most District Officers not much less than a fortnight to distribute the export coupons at the beginning of each quarter, and this greatly interfered with their normal routine work. Moreover, the point of view of the natives themselves must be considered; some of them had to come a forty-mile return journey from their villages to the District Office; there was considerable grumbling as it was, and if they had had to make the journey every month instead of once a quarter, there would have been real discontent. An elaborate system of local offices, instituted specially for the issue of coupons, would have been enormously expensive, and would probably have greatly increased the very serious difficulties of administration, of which some account will be given below. A compromise on two-monthly periods might have been some improvement, but it may be doubted whether it would have been worth the extra trouble and difficulty. Another possible compromise might have been a monthly basis for estates and a quarterly basis for native production, with some scheme of adjustments to bring the quarterly changes more or less in line with the monthly changes during the previous quarter. But even minor price fluctuations would make it most difficult to ensure that such a scheme would actually work out fairly to both parties, and it is virtually certain that both parties would in any case have thought that the other was gaining at its expense; it was really essential to treat estates and native holdings alike. One other expedient, however, must be considered; assuming that the sliding-scale figures had been adjusted in the best possible way, a reserve stock might have been held by the British Government, and released according

^{*} Including, of course, dealers and manufacturers as well as the so-called professional speculators.
† Compare the experiences of the Cuban Co-operative Export

to a scale when the price rose substantially beyond the pivotal point. The argument that in a sensitive speculative market such as the rubber market, the existence of reserve stocks depresses price just as much as would the actual placing of that stock on the market, does not apply here. Held with the financial backing of the British Government, and only to be obtained at certain publicly specified prices, there could be no question of doubt as to whether or when the stocks would be sold, and it is this uncertainty which depresses prices by hindering speculation. The result would be that manufacturers would not trouble to carry large stocks of convenience, but would live more or less from hand to mouth so long as the price was near the pivotal point. This might be a great drawback in certain circumstances, but in the case of rubber, manufacturers did in fact reduce their stocks virtually to zero, even without this safeguard of a reserve in the hands of producers. The producer would not have suffered by any greater tendency to reduce stocks and so depress prices. Where he would have suffered is in respect of the costs of holding such a stock, which might quite well never be required. If the object of the Stevenson Committee had been to institute a full-fledged permanent stabilisation scheme, the value of such a reserve of rubber as, so to speak, a safety valve, should have merited their careful attention. But, of course, their object was to rescue the industry from disaster, and restriction was to be removed as soon as equilibrium had been re-established. Nevertheless, prices did get out of hand—and for the lack of a relatively few thousand tons of rubber in or near consuming centres—and it seems likely that they would have done so, even if the sliding-scale figures had been arranged to secure the greatest possible flexibility compatible with adequate general control. Hence such a scheme of reserve stocks, liberated at specified prices, might have been useful, and the costs of such stock-holding should have been regarded by producers as an insurance premium against the indefinable and incalculable, but certainly most serious, results of run-away prices even from their point of view.

There was, in fact, no way in which a mechanical scheme could have been given a really adequate degree of elasticity except by enlisting the close co-operation of a large proportion of the consumers. The leaders of the R.G.A. did not realise this in 1922, but in 1925 they found it a convenient reply to American complaints; the whole trouble had been caused by the failure of the American manufacturers to realise the vitally important part which they were called

upon to play in the operation of the scheme; to which accusations the Americans retorted, and with considerable justification, that their cooperation had never been solicited, and that in any case it was an impossible rôle for them to play so long as each firm bought its rubber individually and in competition with each other. The force of this last point must be admitted; an individual manufacturer cannot be expected to force up the price against himself, and even if he did attempt to do so, his resources would be inadequate unless others chose to do the same.* The British contention that the Americans should have ensured themselves of adequate supplies under the scheme, is only valid under conditions of monopolistic buying. If the definite co-operation of the American manufacturers as a body, or at least of a substantial proportion of them, could not have been obtained, it becomes a matter of doubt whether an arbitrary scheme, despite all its drawbacks, might not have been better than even the best possible mechanical scheme, for producers really suffered in the long run from the events of 1925, at least as much as consumers did in the short run, while the lack of elasticity in effecting sufficiently rapid curtailment of supplies might have been, if it actually was not, a serious disadvantage.

It is therefore necessary to consider whether it would have been possible to secure some measure of active co-operation on the part of the American manufacturers. In 1922, it must be remembered that there was no antagonism between producers and consumers; it was simply an absence of any relations at all. manufacturer of a commodity, such as rubber, has no special interest in ultra-low prices as compared to the interest which he has in stable prices. Admittedly the situation in the American tyre manufacturing industry was not conducive to the conduct of organised relations on their part, but there was sufficient organisation at least to enable the R.G.A. to make plain what it intended to do, and the part which the Americans were expected to play. Whether the R.G.A. seriously considered consultation

^{*} Nevertheless it seems hard to explain why the Americans did not buy in sufficient quantities during the quarter August-October 1924 to raise the average price to 1s. 3d., and thus prevent a further contraction of the percentage exportable from the restriction area. The average for the preceding quarter had been under 11d., and in the above-mentioned quarter reached 1s. 2-632d. Probably only the larger manufacturers realised that the failure to reach 1s. 3d. would involve increased restriction—the rank and file never really understood the scheme—and for the rest of the explanation, since the Americans cannot have expected the demise of restriction when the price was thus rapidly rising, whatever they may have thought a few months previously, all that can be said is that the incident confirms the inevitably short-sighted character of competitive buying, especially when the vagaries of an artificial control scheme increase the uncertainty lest the current price-level may not be maintained in the future.

with America is doubtful; it probably never entered their heads to do so, for it must be confessed that they never appear to have appreciated that the relations of producer and consumer are those of seller and customerthat the producer exists to serve the consumer, and not the consumer to serve the producer. Up to 1922 at any rate, no attempt had ever been made by the R.G.A. to cultivate the goodwill or to study the problems of their chief This must be set down as a serious business mistake, even if they may be more easily excused for not realising that the cultivation of the goodwill of the consumer becomes of supreme and essential importance when producers embark on any sort of scheme of conscious control, let alone if that scheme is to be on a mechanical basis such as the Stevenson scheme. It was, in fact, only at the urgent request of the American manufacturers that the R.G.A. opened up definite relations by sending over delegates in 1923. The truth seems to be that in 1922 the British industry and the Colonial Office alike failed to realise that the consumer had to play any really definite part in their scheme, or that he had any power to influence its operation.*

* The same conclusion is reached in the following well-reasoned passage from a pamphlet by Mr. D. M. Figart of the Department of Commerce entitled America and Rubber Restriction, published in 1926. Though written by an American, and so soon after the high feeling engendered by the price boom of 1925, this pamphlet is in no sense a mere polemic, but in general maintains the impartial character of an economic study, such as might be expected by those who are familiar with Mr. Figart's other writings. He concludes, "One can search the Stevenson Reports from cover to cover, and all the incidental matter that was published in connection therewith, without finding a single reference to the necessity of American co-operation in making the Plan a success. Had the need for such co-operation been foreseen, one would have thought that some reference thereto would occur; the attention of American manufacturers would have been drawn to the Plan and their suggestions asked before it was adopted; or some clause in the Plan would have pointed out that stability would result only if the Americans maintained prices above a certain level by buying rubber. One cannot honestly escape the conclusion that automatic stability was intended."

On the other side may be quoted the following passage in a letter to the author from a recognised authority in the producing industry, who was kind enough to read a draft of this memorandum. "It is hardly correct to say that the Colonial Office and the producers failed to realise the part which the manufacturers must necessarily play in the working of the scheme. It was the general desire of producers that the price should remain at round about 1s. 3d. per lb. until the world could again absorb the unrestricted supplies. The Colonial Office recommended a scheme which made such stability possible, and if the industry wanted stability it was up to it to take steps to ensure it. Producers naturally, but, as we now know, erroneously, assumed that manufacturers would regard the scheme as the most important factor affecting supplies. Your tacit assumption that they would not do so is certainly nearer the truth. Of course, manufacturers can say, with a great deal of truth, that they could not in 1924 foresee the big expansion in demand in 1924, they could have bought up quantities of rubber for 1925 delivery at between 1s. and 1s. 3d. per lb., and that contraction in the exportable percentage would continue unless the price was over 1s. 3d. Any contracts entered into in the autumn of 1924 seemed, therefore, to be very well protected against a fall in price, and they would have afforded an equally great protection against the speculator in 1925."

There can be little doubt that a great deal more should and could have been done to enlist the sympathy and general support of the American manufacturers. Whether the requisite degree of active co-operation could have been secured is another matter. In a later section, more attention will be given to the situation in the U.S. rubber manufacturing industry, to the attitude of the manufacturers, and their actual reception of the restriction scheme. Anticipating what will be said there, it seems extremely doubtful whether any real co-operation could have been secured. Firestone was not without supporters, and if he had not made things too difficult, some one else would have done so, for there can be little doubt that certain American interests keenly desired to secure a substantial participation in Malayan plantations, which plans were frustrated by the imposition of restriction. Finally it must be admitted that many mechanical difficulties would have had to be surmounted in devising any effective method of co-operation, quite apart from the attitude of those concerned. Nevertheless, a great deal might have been done which was not done, towards securing a sympathetic understanding and generally harmonious relations.

Given such relations, and given the best possible arrangement of the sliding-scale, it may be concluded that a mechanical scheme would have been preferable to an arbitrary scheme; sufficient elasticity could have been secured to ensure a reasonable chance of successful operation on a mechanical basis. If, even so, such a scheme had failed, and prices had got out of hand, then it seems clear that the mechanical principle should have been abandoned at once, and refuge taken in some arbitrary scheme of control. This conclusion also applies, of course, to the actual course of events under the Stevenson scheme. In 1925 the British Government should have taken its courage in both hands, and jettisoned mechanical regulation altogether. But the most important lesson to be drawn from this discussion is that the technique of operating a mechanical scheme of control is extremely complicated; we have to learn and perfect this technique, just as all forms of technique have to be learned, and presumably by the usual and unavoidable method of painful and costly experience.

(b) The Original Pivotal Price.

The pivotal price during the first three and a half years of restriction was 1s. 3d. per lb. This price was suggested by the Stevenson Committee, and in their first report they stated that "a

policy of restriction can only be a temporary palliative, but in fixing the price which shall govern the alterations in the percentage of standard production exported at the minimum rate of duty, the Committee arrived at what they believed to be a figure which would ensure a satisfactory margin of profit, notwithstanding the somewhat higher cost of a restricted crop.' In the view of some of the American manufacturers there was no case for a price which would do more than cover marginal costs; that artificial control should seek to ensure the making of profits and not merely the avoidance of losses, seemed to them conclusive proof of the essentially monopolistic aims of the whole scheme. The defence, as developed by various leaders of the R.G.A., was that in view of the probably great expansion of demand in the more distant future and the long period of gestation required for new capacity, it was most necessary (a) in the ultimate interests of the consumer that there should be no halt in new planting, and (b) in the interests of the British industry that Malaya and Ceylon should do their share of this new planting, so that it should not be done exclusively by other countries. These various contentions require careful examination, for the selection of the pivotal price was, of course, a matter of crucial

importance. The first problem is to determine whether a pivotal price of 1s. 3d. left a really substantial margin for profits even with the higher costs of a restricted output. This involves an estimate of the normal average costs of production in 1922. Such estimates can only be made by an analysis of the accounts published in company reports, and the results will necessarily be subject to considerable potential error owing to the lack of any standardised system of accounting. There are several such estimates relating to conditions in or about the year 1922, of which perhaps the most extensive and careful are those of Messrs. Symington and Sinclair, and of Mr. Maclaren in his "Rubber, Tea, and Cacao" volume of the Resources of the Empire Series. Their calculations are made on much the same basis, and the former's definition may be "The term 'all-in costs,' in the sense in which we have used it, comprises all estate expenditure (other than capital expenditure), staff bonuses, allowance for depreciation of buildings and machinery, freight to London or New York, marine insurance, dock charges, and brokers' and agents' commission, as well as directors' fees and cost of London office administration." Messrs. Symington state that in some cases they have had to estimate one or more of these items. Mr. Maclaren states that

the practice of charging depreciation on buildings and machinery varies. With this qualification, which Mr. Maclaren states to be relatively unimportant, it will be seen that in both these estimates, interest on loans or debentures, or depreciation on planted area are omitted, but otherwise all items normally reckoned as costs are included. The estimates are as follows:

AVERAGE ALL-IN COSTS OF ESTATES IN 1922-23.

	Symington.		Maclaren.	
	No. of Companies.	Costs per lb. pence.	No. of Companies.	Costs per lb. pence.
Malaya Ceylon Netherlands	60 13	8·43 7·46	173 (not stated)	8·3 7·7
East Indies	18	9.74	33	(approx. 9.22

In view of the different size and composition of the samples, the agreement between these estimates is close, and they can be taken as a reasonably accurate general measurement. So far as Malaya is concerned, an average cost of 9d. may be taken as including some allowance for interest. But it would be extremely misleading to regard this as the true normal cost even at that date. The low prices of 1922 had led to the most drastic economies, and possibly to some over-tapping as judged by the commonly accepted standards. Some of these economies were undoubtedly genuine improvements in efficiency, but many took the form of reducing the normal expenditure on weeding and the general upkeep of the estate, increased tapping tasks, reduction of European staff, and such-like reductions of expenditure which at least on the standards of the time could have been regarded as temporary measures only. For the period 1921–22 Messrs. Symington put average costs in Malaya at 10.70d., and Mr. Maclaren at 11.8d.; while in the period before the depression had begun they give 14d. to 15d. It would be quite misleading to regard this lastmentioned figure as representative of long period normal costs, and nearly as misleading to accept the figures for 1922 at their face value. In a period when costs are rapidly and greatly changing, the conception of long period normal costs becomes very hypothetical, but this is nevertheless the measurement we require in reference to the fixing of the pivotal price under restriction. Very broadly, average normal all-in costs in Malaya in 1922 may be put at 10d. Similar considerations would apply to the figures for Ceylon and the Netherlands East Indies, which latter have been included as some evidence of the point, made on p. 21, that costs in the N.E.I. were not below those in Malaya at

this period.

Taking 10d. as the general level of costs in Malaya on the basis of full production, it is now necessary to estimate what these costs would be on a restricted output. The Report by the Parliamentary Under-Secretary of State for the Colonies on his visit to Malaya, Ceylon and Java during 1928, gives an estimate by "a high authority" from which it appears than an f.o.b. cost of 8d. on full production would be increased to 10·17d. on an output restricted to 60 per cent. This scale of increase tallies closely with such other information on the subject as I have been able to collect. In other words, it appeared probable, when the Stevenson Committee were deliberating in early 1922, that the average costs in Malaya, on the basis of 60 per cent. of full production, were about is. per lb. To this must be added $\frac{1}{2}d$. per lb. for the minimum export tax imposed under the restriction legislation. This leaves a margin of $2\frac{1}{2}d$. for profit at the pivotal price, but the pivotal price applied to standard quality sheet, and since no estate can avoid the production of a certain proportion of lower quality products, no estate would in fact realise a price of 1s. 3d. for the whole of its production; the average price obtained by an estate would not exceed 1s. $2\frac{1}{2}d$. under the most favourable and efficient conditions of production and management. real margin of profit would not therefore be more than 2d. Statistics issued by the Rubber Growers' Association show that at this period the issued capital of 515 companies was £62 9s. per planted acre. On such a capitalisation per acre, and on the basis of an assumed average yield of, say, 350 lbs. per acre, profits of 2d. per lb. would mean a return of barely 5 per cent.

It must, however, be remembered that the figures of cost which we have considered above are average and not marginal. Mr. Maclaren's average was $8 \cdot 3d$. for 173 companies in Malaya; the distribution of their individual costs was as

follows:

II were just below 6d. between 6d. and 7d. 29 7d." 8d. 37 ,, 8d. 43 9d. 23 23 ,, "rod. 26 9d. " " "IId. Iod. IId. ,, I2d. over 12d.

Raising these figures by about 2d. a lb. to conform with the probable normal cost, and adding another 3d. for the increase in costs on a restricted output and for the export tax, it is clear that the 27 companies whose costs in the

above table are shown as over 10d. would hardly pay their way at the pivotal price; these 27 companies amount to over 15 per cent. of his sample. On the basis of a restricted output, marginal costs in Malaya were certainly not much below is. 3d. in 1922–23, and the pivotal price could not have been fixed much lower if the existence of the marginal estates was to be

The Stevenson Committee's idea of a "satisfactory margin of profit," therefore, appears extremely modest, and from the point of view of forestalling American criticism, it seems a pity that they did not rest their case on the necessity for preserving the marginal producers; presumably they felt it necessary to make their scheme appear as attractive as possible to the producer, and of course the bulk of the industry would make small profits, while the lowest-cost producers might obtain a return of 10-15 per cent. Moreover, the Committee could rightly anticipate a tendency for costs to decline, since every year the proportion of mature acreage would tend to increase. Stress must, however, be laid upon the point that the above analysis and computations of costs of production rest upon the statistics of 1922–23, that these statistics then appeared to represent the result of drastic economies such as could not be indefinitely maintained without prejudice to the future, and that, therefore, true long period normal costs must be regarded as definitely higher. Actually this was not to prove a correct hypothesis. An examination of the cost figures of representative estates shows the very great reductions achieved in 1921 and 1922, but there is little or no tendency for costs to rise during 1923 and 1924. Under the spur of adversity, the industry brought down costs to a new low level, and assisted by the increasing proportion of mature acreage, that level once secured was held, at least until prosperity returned in 1925 and the purse-strings were once more automatically, and in a sense unconsciously, loosened. This unexpected maintenance of economies was not in any way at the expense of the future; the technique of production was changing, and it was found that many expenses which had been thought necessary, but which were temporarily foregone in 1922, could be dispensed with wholly or in part without detriment to efficiency. Hence in actual fact, though many estates incurred heavy losses in 1922,* very few made losses in 1923,

^{*} Companies whose financial year ended during the first part of 1923 are included in the basis for this generalisation, but these were greatly helped by the sharp rise in the price during the first two restriction quarters. If all accounts were based strictly on the calendar year, the number of companies incurring losses during 1922 would have been considerably greater.

and practically none in 1924, even though the price averaged little more than is. id. It is. of course, possible that the Stevenson Committee foresaw the permanence of the low level to which costs were being reduced in 1922, and were really basing their idea that a pivotal price of is. 3d. would give a satisfactory margin of profit, on this expectation. But this seems most unlikely, for few producers will deny that they were surprised at the continuance of low costs during 1923 and 1924. The reduction in costs as compared with 1920 was so great that it seemed that it must be looked upon as sub-normal, even though, of course, as each year passed the proportion of tappable acreage to total acreage was increasing on most estates. Allowance for this factor could have been, and probably was, made by the Committee, but that they realised the permanence of the 1922 level of costs seems highly

improbable.

The Committee therefore seem to have opened their scheme quite unnecessarily to attack by the American manufacturers on the ground that the pivotal price was fixed too high. The defence, which was subsequently developed by some of the leaders of the industry, that a profitable level was necessary to stimulate new planting, and that new planting was necessary in the ultimate interests of the consumer, was not of a very convincing character. The most that could be anticipated was that the lower cost estates would continue some planting up of their reserve land, using their reserves and part of their current profits for the purpose. Such extensions can be carried out at a cost per acre far lower than would be the cost per acre of establishing a new estate with factory buildings, coolie lines, etc., and probably a good deal of road-making. Such planting as did take place during 1923 and 1924 was indeed the planting of extensions, but it was on an insignificant scale. The Stevenson Committee cannot have failed to realise that it would be impossible to raise large amounts of new capital in the open market so long as the price remained at 1s. 3d. New planting is naturally never undertaken on any large scale, whether in the form of new estates or even considerable extensions to existing estates,* so long as the shares of existing companies with estates of average efficiency can be bought up at a price considerably below their equivalent in terms of the capital costs of new planting; in other words, so long as the current value of the existing acreage is below the costs of new planting

per acre. This was undoubtedly the situation in 1922, for current share values had slumped heavily, and unless the pivotal price gave really satisfactory profits to existing producers, there was little probability of existing shares rising to the required extent, especially in view of the fact that during the boom of 1919-20 capital values had in many cases been directly or indirectly inflated to a considerable extent. If a price level of 1s. 3d. was going to stimulate any considerable new planting, that stimulus was obviously stronger in respect of the Dutch than of British producers. Even though in 1922 costs in Java seem to have been rather higher than in Malaya, those costs would not be swollen by restriction, and a price-level of 1s. 3d. would provide the Dutch with a satisfactory margin of profit. The question, indeed, arises whether, in the ultimate interests of the British plantation industry, the pivotal price should have been set lower, even if that meant the bankruptcy of a number of the highest cost Malayan producers. The lower the pivotal price, the less the profits of the Dutch, and therefore the less the probability of any substantial new planting to the detriment of Malaya. But, as has been remarked in the previous section, the Dutch did not view the future as too satisfactory, even when restriction had been imposed and they found themselves in the relatively comfortable position of outsiders, and the Committee were probably right in concluding that the likelihood of heavy planting by the Dutch estates was not so great or so serious a matter as to justify the risk of bankruptcy to the marginal British estates which was involved in any pivotal price lower than is. 3d. In all the circumstances, little fault can be found with the initial selection of that figure; it was not unnecessarily high, nor was there any necessity for it to be lower.

(c) The Assessment of Standard Production in Malaya.*

The assessment of estates over 100 acres † was performed by special committees of planters; that of estates under 100 acres was carried out by the ordinary District Officers of the Malay Civil Service, each for his own district. A right of appeal to the Central Advisory Committee was allowed to the owners of all

† For the first year this figure was 200 acres in the Federated in contrast with the Unfederated Malay States, etc. For the second year the F.M.S. came into line with the rest.

^{*} For where the extensions are of considerable size, factories, coolie lines, etc., are usually required, and the cost amounts to something like that of planting completely new estates.

^{*} The writer has had no opportunity to visit Ceylon; hence the limitation to Malaya, in view of the detailed local knowledge which is necessarily involved in the study of these assessment problems.

estates and holdings in excess of 25 acres, but the District Officer's assessment was final for holdings below this limit. It will therefore be convenient to consider the assessment of the two divisions, above and below 100 acres,

separately.

For the first year of restriction, November 1, 1922, to October 31, 1923, returns were obtained from all estates * of their production during the year ending October 31, 1920, and these were used by local Assessment Committees as a general basis and rough guide. Returns for a more recent period could not be used, as in 1920-21 voluntary restriction was general, and a number of individual estates were restricting to some extent in 1922. Allowances had therefore to be made for new areas which had come into bearing since 1920, and this was done according to a scale of output per acre by dates of planting, which had been drawn up by the Duncan Committee in 1921 with reference to their proposed scheme of restriction. Allowances had also to be made for the greater maturity of the younger trees, on which tapping had but recently commenced in 1920. production records were therefore only, so to speak, a starting-point; the modifications which had to be made were very large, as may be seen from the fact that the total standard production of Malaya for the first restriction year was assessed at about 75,000 tons more than the total exports in 1919-20.† But it must be remembered that the business of making these assessments had to be done in a great hurry, and it was impossible to check the statements and figures put forward by the estates. There can be little doubt that many estates claimed and obtained more than they should have done, and this was soon realised. The making of assessments for the second restriction year was entrusted to a Central Assessment Committee of planters. This Committee came to the conclusion that a universal scale of output according to date of planting would be both fairer and more accurate than specific reference to actual output in one particular past period, for some estates might have been pursuing a more conservative policy of tapping than others, who would thus obtain undeservedly large quotas. The Committee also felt that the Duncan scale was, in general, too high from the point of view of preserving the productive capacity of estates in the future, and this was rightly regarded as a most important principle. Accordingly, a new scale of output was formulated. This compares with the Duncan scale as follows:

† I.e. including estates under 100 acres.

	Duncan Scale, lbs. per acre.	New Scale (1923–24), lbs. per acre.
1st Year of Tapping * 2nd , , , 3rd , , , 4th ,, ,, and over.	120 180 240 320	60 180 240 300

Special allowances up to a maximum of 400 lbs. per acre † were made in the case of estates which proved that their system of tapping was lighter than a standard system adopted by the Committee, while deductions were made if the tapping system of an estate was heavier than this standard. Estates which proved that on the standard method of tapping their trees would not yield as high as the new scale, might

receive an allowance on this score.

"The new scale reduced the standard for trees in their first year of production, and fixed lower maxima. On the other hand, additional areas must necessarily have come into bearing since the first year of exports regulation, and the areas assessed at 120, 180, and 240 lbs. in the first year fall into later age classes and rank at 180, 240, and 300 lbs. respectively in 1923-24." † The F.M.S. Advisory Committee estimated that the new rules would give a total standard production less than that which would have resulted from the continuance of the old rules. As Mr. Maclaren, writing almost simultaneously with the change, pointed out, this did not necessarily mean an actual reduction in the total standard production. Actually, however, it did effect such a reduction, but this was probably mainly due to the much greater care with which assessments were made for this second year of restriction. "Very detailed sworn statements with regard to each estate were demanded before an assessment was granted, and where the Committee had any grounds for doubting the accuracy of the figures supplied, inspection was insisted upon." § Even so, Mr. Rex adds that "at the start there is little doubt that a certain amount of rubber just coming into bearing was claimed as a year older than it actually was, but as time went on and this rubber became mature and its age a matter of little importance so far as assessment

† This limit was raised to 500 lbs. in 1925, and abolished altogether in 1926, though its removal caused no appreciable increase in assessments (see Report of Rubber Controller for 1925–26).

‡ Maclaren Rubber Tea and Cacao (Resources of the Empire Series).

§ Řex, in his introduction to Statistics relating to Rubber in the F.M.S., 1929.

^{*} Including also estates between 25 and 100 acres; these were used by the District Officers.

^{*} This was reckoned by the Duncan Scale to be when the trees were over five years old; under the new scale when 60 per cent. of the trees had reached tappable size as defined by given measurements.

was concerned, most of these errors were corrected, and the figures for the planted area undoubtedly attained a high degree of accuracy."

The great and unexpected increase in yields since the removal of restriction suggests the possibility that standard production was very much under-rather than over-assessed. The subject of this great increase in yield will be more fully discussed later on, but it seems advisable to anticipate here the conclusions there reached, namely, that in the main this increase in yield is due to improved methods of cultivation, tapping, etc., which were introduced during the restriction period, and particularly perhaps during the later years. In the sense that in the later years of restriction Malaya could have produced more than the assessed standard production, it may be said that there was under-assessment. But the gradual rise in the potential yield, concealed so long as restriction lasted, was very little suspected even by the managers of estates, and in any case standard production was assessed on an essentially theoretical basis, and the accuracy of its assessment must be judged according to this basis. So judged, it is still possible, perhaps even probable, that there was some underassessment. On this matter the opinions of estate managers or directors are altogether untrustworthy; every one of them complained that he was under-assessed and his neighbours over-assessed, whatever he may have felt in his heart of hearts. But a leading member of the Assessment Committee pointed out to me in conversation that the policy of the Committee was "If in doubt, reduce his assessment," and that the average estate manager was not a skilled presenter of a case. "It would," he remarked. "often have been different if there had been specialist lawyers to plead for estates, instead of the managers writing letters in the strain, 'I think this is very hard on us'." The point merits considerable attention in respect of the making of assessments or quotas under all kinds of artificial control schemes. Hence some part of the thousands of pounds by which the Committee used to reduce preliminary claims, may not perhaps have been justified. It should be added, however, that the speaker quoted above was convinced that the degree of under-assessment was not really appreciable. It must, indeed, be realised that the Committee had to deal with many claims which, though not meriting the appellation fraudulent, were nevertheless constructed by persons who were prepared to sail pretty close to the wind.

A leading Chinese planter, however, complained to me that the Chinese estates as a

group * were assessed more severely than the European estates. He pointed out that few of the Chinese owners can speak English, and were therefore on that account at a definite disadvantage in answering the questionnaires, while it was very significant that appeals by Chinese estates nearly always failed, while a large percentage of European appeals succeeded. It would be idle to deny outright the possible force of this argument, but at the same time his feelings are very similar to the feelings of European planters, most of whom maintain that the District Officers dealt more kindly with the Malay small-holdings than the Assessment Committee dealt with estates. Further, it must be remembered that even the larger Chinese estates were not conducted according to the same methods of planting, cultivation, tapping, etc., as the European estates, at any rate in 1922, though there has been a rapid process of approximation since then; Chinese rubber cultivation comes, so to speak, half way between the European and the native Malay technique. With their more drastic tapping, closer planting, etc., the Chinese estates in the absence of restriction would almost certainly have produced more than their standard production as assessed, at least for a time, and in this sense assessment according to European standards certainly involved a more severe restriction for a Chinese than for a European estate—in the same way as it bore still more heavily on the Malay small-holdings. Personally I am inclined to think that this is the real substance of the Chinese complaint, and to doubt whether the Assessment Committee showed any discrimination against the Chinese estates qua Chinese in administering their duties as laid down by the Government regulations and decrees. Whether those decrees should have taken account of the differences between Chinese and European estates is another matter; the assumption was that the European technique was the better in the long run, and while a definitely disputable point, the extent to which the Chinese have increasingly copied European methods is at least some evidence, though by no means conclusive evidence, that the Government were justified in, so to speak, imposing European standards on the Chinese estates. This, however, does not alter the fact that the imposition of those standards meant a rather heavier burden on the Chinese at the

It may therefore be concluded that the determination of the standard production, and

^{*} Asiatic owned estates over 100 acres are almost entirely Chinese owned, and are estimated to form about 15 per cent. of the total planted acreage in holdings of 100 acres and over in the F.M.S. (Rubber Statistics of the F.M.S. 1929.)

the assessment of individual estates, was in general accurately and fairly carried out from the second year of restriction onwards. standard production did represent potential production on the somewhat theoretical but essentially reasonable basis which was adopted, and there was no deliberate, nor much chance, discrimination between individual estates. The former conclusion, however, does not apply to the last year of restriction, and though breaking our rough chronological order of treatment, the assessment of standard production in 1927-28 will be most conveniently considered here. The position in the autumn of 1927 was that though the exportable percentage stood at the legal minimum of 60 per cent., yet the price had fallen much below the new pivotal level of is. 9d., and was still obstinately falling. If the pivotal price was to be restored, still more drastic restriction was obviously required, especially in view of the existence of a large volume of unused export rights. It is now hardly a secret that while many producers wished to reduce the percentage to 50 per cent., the Colonial Office were unwilling to make the necessary revision in the regulations, even though the pledge of October 1926, that no further alterations would be made for twelve months, would have expired. The R.G.A., therefore, got round the difficulty by persuading the Advisory Committee in Malaya to discard the 1923 scale of output, and to make the basis of assessment a much lighter standard system of tapping than that which had been used in appeals. The result was to cut down standard production, as it would have been assessed on the previous scale, by about 10-15 per cent.; actually the total standard production was reduced by 20,000 tons as compared with 1926-27; at 314,000 tons it was approximately the same as in 1925-26. The only substantial justification for this change in the method of assessment was that the standard production of 1926-27 had not in fact been produced even when the exportable percentage was 100, as is shown by the accumulation of unused export rights. In Malaya this failure to produce the standard production is ascribed either to shortage of labour or to the fact that estates deliberately refrained from increasing their labour staffs too much in view of the rapid fall in price, and therefore the probability that the exportable percentage would soon be again reduced; in other words, they preferred to accumulate unused rights in the hope that sometime the price would rise again. Hence in Malaya the whole business was, and still is, regarded as essentially a wangle. The London view was rather different; undoubtedly certain

interests genuinely believed in the value of this still more conservative tapping system, and thought that its introduction at this stage would kill two birds with one stone, by converting the unbelieving majority and also helping restriction. But so far as the former objective was concerned, the main result was that estates made no change in their actual methods of tapping, and merely rested more areas. This enforced resting may have achieved the desired result in a different way, but no such system of tapping is anywhere practised to-day. Hence in the last year of restriction, the standard production was far removed from even a reasonable potential production as it was conceived by a

majority of the industry.

So much for assessment problems in respect of estates over 100 acres. As has been said, the District Officers were responsible for all holdings under 100 acres.* In making the assessments for the first year, returns were obtained from the owners of over 25 acres, similar to those obtained from the larger estates, but this procedure was of course impracticable for the far more numerous smaller holdings of the Malays. Reference has already been made to the census of 1921, and this was used as a basis for determining the acreage and the date of planting; assessment was then made according to the Duncan scale. method of taking this census, and a brief appraisal of its accuracy, is given by Mr. Rex in his introduction to the "F.M.S. Statistics Relating to Rubber, 1929." He there points out that while the total planted area as shown by the census was probably a close approximation to the truth, this does not exclude the cancelling out of opposite errors in respect of different districts and of individual holdings. When these census returns were used for assessment purposes, it was soon discovered that the number of such errors was very large indeed, and this is hardly surprising, for, when confronted by the census taker, the Malays had no idea of the object of the inquiry, and therefore did not know whether to exaggerate or minimise. To tell the truth would in such circumstances be merely weak-minded according to Malay standards, and therefore some plunged in one direction and the rest in the other. Hence, though in the total of such a large number of returns, the errors more or less cancelled out, the figures for individual holdings were in general extremely inaccurate, and it was soon realised that there must be a general check.

In the autumn of 1923 this checking was * At the end of 1922, holdings of under 100 acres are believed to have represented about 38 per cent. of the total area of rubber in the F.M.S. All but a small fraction of this is in started by two distinct classes of inspectors; (a) the nominees of local planters' associations who received a fee to cover their expenses, and (b) the subordinate Malay officials of the local government service, who were taken from their proper jobs as they could be spared, and sent out to inspect. The small-holders naturally felt that the former were biassed judges, and in any case their assessments were made strictly on their own standards on European cultivation, etc.; a good deal of bad feeling was thus aroused. The Malay officials had no bias, but their check was unreliable on account of the possibilities of bribery. There was no double At the end of 1923 the Government started the formation of a staff of European supervising officers. This staff was recruited mainly from unemployed planters, and some of them were not entirely trustworthy. They had to deal with large areas, and in the main they were therefore employed in investigating appeals by the small-holders against their assessments; only a small minority of their inspections were made directly at the instigation of the District Officers.

Probably not until 1926 could it be said that as the result of frequent checks and reinspections were the assessments of the small-holdings correct. But the meaning of the term "correct "requires careful definition. For the first restriction year the native assessments were originally made, as has been said above, according to the Duncan scale. But it was soon felt that with the exportable percentage as low as 60, the reduction in the quantity which the native could sell would cause serious hardship, and from February 1, 1923, until October 31, 1923, the native standard production was increased by one-third, i.e. to 427 lbs. per acre for fully mature rubber. For the second year of restriction and until May 1, 1926, holdings under 25 acres were assessed on the basis of a maximum of 320 lbs. per acre for mature rubber (definition was trees 18 inches in girth at 3 feet from the ground), and 160 lbs. per acre for rubber in bearing but not mature, while if the percentage exportable was under 80, additional allowances could be given on the first five acres —these allowances amounted in all to about 20,000 tons a year. From May 1, 1926, the maximum was raised to 400 lbs.,* and for im-

mature rubber to 200 lbs.; the special allow-

ances being abolished. Now the basic scale for

estates over 100 acres was 320 lbs. per acre for fully mature rubber, though extra allowances

could be given up to 400 lbs., and later 500 lbs., while even this limit was removed in 1926, though it was really inoperative as very few estates could qualify for such an assessment. Thus in the first years of restriction the native received special consideration, but from November 1925 onwards it may be said, in broad terms, that the small-holdings were assessed on the same basis as the larger estates, which indeed was the declared policy. In other words, the statement above, that the assessment of smallholdings was correct from 1926 onwards, means correct according to the standards established by the restriction regulations, which in turn were based on European methods of planting, cultivation, tapping, etc., and most important on the average yields per acre which were deemed economic in the long run. Now there is little doubt that the authorities in charge of restriction thought these standards could reasonably and properly be applied to the native holdings; in other words, that the assessments made did approximately represent potential capacity in the long run. The only statistical information as to native yields at the beginning of restriction relates to 1920 and is limited to the F.M.S. These figures suggest that the yield per mature acre on native holdings was in the neighbourhood of 300 lbs., and the yield per acre of all tappable rubber 270 lbs., as compared with a similar figure of 380 lbs. for estates. At the close of the restriction period, Mr. Beale in his D.O.T. report, "unofficially" though "on the most reliable information available," estimated the average normal yield on holdings under 100 acres at 300 lbs. per acre. And yet in 1929 and 1930 these small-holders have actually produced at a rate of no less than 475 lbs. per acre! This suggests that the earlier statistics must have been wide of the mark, for the causes which have led to the great increase in the yield of estates per acre actually being tapped,* e.g. better cultivation, etc., apply only in a very limited degree to small-holdings. But the earlier evidence should not be set aside too easily. The explanation of the high yields during the last two years may be that the native had such ample bark reserves and that his trees were in such good condition as the result of the enforced resting during the restriction period, as to enable him to produce for a time at an altogether abnormal rate, which he cannot hope to maintain much longer. If this proves to be the case, and the average native yield declines

^{*} In the Report of the Rubber Controller for the restriction year 1925-26 it is stated that "The 400 lbs. maximum has been generally treated by District Officers strictly in the manner intended, namely, as a maximum and not as an indiscriminate flat rate."

^{*} The average yield of estates per mature acre was about 380 lbs. per acre, i.e. the same as in 1920, but at any time probably one-third of the total acreage is now resting. The average yield per acre actually being tapped is probably not far below the 475 lbs. per acre obtained by continuous tapping on small-holdings. Further discussion and explanation of these matters is given in Section VI.

again to, say, 350 lbs. per acre, we can conclude that during the restriction period European standards were applicable to native holdings, and that therefore they were not appreciably under-assessed. But if the small-holders succeed in permanently maintaining yields near the present level, then we must conclude that European standards were not applicable, and that there was very serious under-assessment in so far as the assessments were supposed to approximate to potential production, which was undoubtedly the case. Another year, or perhaps a little more, must pass before this issue can be determined, for it may be remarked most European planters confidently prophesied a decline in yields during 1930, of which there has not been much sign, and yet all reports indicate the drastic nature of the small-holders' tapping. It seems impossible that the present yield should be maintained, but at the same time it must be admitted that we are still without even reasonably reliable information as to what the rubber tree will stand under the methods of planting and the physical conditions of the Malayan smallholding.

Even if time shows the probability of serious under-assessment, however, this does not carry with it the implication that the natives actually suffered unjust treatment. The raising of the original first year's assessment, and the operation of the subsequent scheme of allowances, probably went far towards making good any possible under-assessment of the standard production, while there was so much evasion of the law and so much imperfection in the actual working of the assessment machinery, owing to the absence of adequate checking, that the native had no grievance in practice. In the later restriction years, when assessments were reasonably correct and evasion difficult, the small-holder had made so much money during the boom that he could bear any such burden with equanimity. In 1926, for example, he was not troubling to produce even all he was allowed to produce. This whole question, indeed, is fundamentally of theoretical rather than practical importance, but its discussion at this length seems to be warrantable, because it does serve to bring out the great difficulties which must inevitably ensue under any restriction scheme which necessitates the application of a common standard where two entirely different methods of production prevail. The native rubber holdings cannot be considered simply as small sections of a European estate; on the contrary, it is hardly an exaggeration to say that the only point of resemblance between them is that they both grow rubber, and everything else is just about as different as the form in which they respectively produce that rubber. The application of European or large-scale plantation standards to a native industry producing for the same market, might easily involve real injustice, and with some native races give rise to serious political trouble. The injustice might easily have been perpetrated in Malaya, especially in the absence of trustworthy statistical information, and it is at least comforting to be able to reach the conclusion that any such injustice as may have been done was certainly over-laid by other mistakes or imperfections in the working of the scheme.

(d) Smuggling and other Evasions of the Law in Malaya.*

Estimates of the maximum rate at which rubber was smuggled out of the Malayan restriction area range all the way from 10,000 tons a year to 50,000 tons, while the minimum rates are estimated at anywhere between 5,000 tons and 20,000 tons. The passage of time has not helped the historian in this matter, and the truth is that the exact importance of smuggling as a factor in the restriction scheme of 1922–28 is not and never will be known. The F.M.S. Government, though pressed by the members of the Federal Council, always declined even to suggest any specific figures, though it confessed to the opinion that "there is considerable leakage of rubber by smuggling throughout the Peninsula," and that the smuggling was being carried on mainly from Johore, and also Kedah.† In commenting on previous discussions of the Federal Council, the High Commissioner stated in November 1927 that "opinions differed widely as to the quantities of rubber grown in the Malay States which were thus evading control, but all were agreed that they were to be counted by hundreds of tons every month, and that rubber smuggling was rapidly becoming a highly organised industry which indubitably had a large financial backing supporting it." The only other source of official information is the annual reports of the Controller of Rubber. Judging by the statistics. of convictions for smuggling, and of the number of boats and amounts of rubber captured, smuggling began gradually during the first two restriction years, and reached a peak during the

† Federal Council Minutes, August 8, 1927, answers to questions.

^{*} The limitation to Malaya in dealing with these matters is again because they necessitate inquiry on the spot. Smuggling was not, of course, an important problem in Ceylon; how far other evasions and the drawback of bribery and corruption were the same in Ceylon as in Malaya, the writer is not in a position to state, and he wishes to stress the limitation of this section to Malaya only.

high prices of 1924-25. The next year there was a "very marked decrease," due largely to the 100 per cent. release, or in other words to the fact that Malaya could not produce the full standard production as assessed. With the re-introduction of effective restriction during 1926-27 there was "a marked increase" and "smuggling was more highly organised," and " particularly active" from March to June 1927, though in November and December there was a "distinct falling off." During the first two months of 1928 smuggling was less than in the corresponding period of 1927, and when the price dropped on the appointment of the Civil Research Committee to inquire into the future of the scheme, there was a "corresponding decrease in the quantity smuggled." further drop in price when the coming termination of restriction was announced in April had the result that "smugglers no longer found it a paying proposition to carry on their activities,' and from May I the preventive launches began to be gradually withdrawn. It is thus clear that with the price of rubber above, say, 1s. 6d., it was the degree of restriction rather than the price which affected the volume of smugglingin other words, it paid to smuggle while rubber was above 1s. 6d., and the real limitation on the extent of the smuggling was the difficulty of getting supplies to smuggle. Of course the high prices of 1924-25 must have stimulated the trade, but the degree of its profitability was not the important factor, so long as it was reckoned profitable at all. The supply of potential smugglers seems therefore to have been great. The trouble was that with a high exportable percentage the supply of rubber for them to smuggle was relatively small. This is a point of some importance in the technique of artificial controls in any way similar to rubber restriction; the volume of smuggling may not be a function of the price-level of the commodity; on the contrary, if the price under restriction is sufficient to induce the smuggling of one ton, it may well induce the smuggling of all the tons which can be obtained for the pur-The supply curve of smuggling may apparently have a very unusual shape!

There can be no doubt that smuggling was a quantitatively important factor. At the meeting of the Federal Council on August 8, 1927, Mr. Egmont Hake explained in some detail the reasons which led him to believe that the total quantity of rubber smuggled from Malaya was at the rate of at least 24,000 tons a year, "so long as the legitimately exportable percentage is low." He put forward this figure as one which a reasonable person would accept, though he inclined to the view that it should really be

much higher than this. He argued that "Johore is smuggling to the fullest extent of its wishes," and that "if the whole preventive organisation in that territory were closed down, it is very questionable to my mind whether the quantity smuggled would be appreciably larger that it is." His general summary was as follows: "Smuggling has been going on for three years, in varying degrees according to the export percentages, and some 40,000 to 50,000 tons must have reached the market during that period," which, as he remarked, must have made a great difference to the price of rubber and the whole working of restriction.

As the result of my own investigation on this problem, I am inclined to the belief that Mr. Hake's summary is a closer approximation to the truth than estimates either of a much higher or of a much lower order of magnitude. In my opinion, therefore, smuggling was a matter of very definite importance but not of anything approaching the crucial importance which some have believed. Whether it need have been so is another question. As has been said, the main source was the State of Johore. The fact that the maximum penalty in Johore was only six months' imprisonment, as compared with two years in the F.M.S., was a minor factor. The real trouble was that the Sultan made little attempt to enforce restriction until, in the summer of 1927, Sir Hugh Clifford, soon after his appointment as High Commissioner, visited him for a friendly talk on the subject. The "distinct falling off" in smuggling at the end of 1927, as reported by the Rubber Controller, was undoubtedly mainly due to this conversation. There seems little reason, however, to suppose that such steps might not have been taken at an earlier date, even if allowance be made for the somewhat delicate relations between the British Government and the nominally independent rulers of the native states, and for the fact that Sir Hugh Clifford was peculiarly well qualified for such a task.

It must be admitted, nevertheless, that even if a strong line had been taken in Johore, smuggling would still have been a serious difficulty. In the main, the smuggling was not done from recognised ports, i.e. with the connivance of the customs officers, though in 1926 the Rubber Controller reported the discovery of an "extensive fraud on the Johore-Malacca borders in which there was collusion between native Customs Officers and smugglers, seven of such Customs Officers being sentenced to twelve months' rigorous imprisonment each." This was certainly no isolated instance of moral failure on the part of native Customs Officers, but in the main the smuggling was done from

the innumerable rivers and creeks which make up the west coast of the Malay Peninsula. This, and the existence of similar facilities on the Dutch Islands, as well as the facts of their proximity, and of the relatively calm waters of the "Shallow Seas," combined to make ideal physical and geographical conditions for the smuggler. Another difficulty was that of providing a really deterrent penalty. It was only the small fry who were caught, and though the fines imposed were so enormous relatively to the customary income of these men that the alternative of two years' imprisonment was virtually always the actual penalty, yet they could face this with reasonable resignation, because their families are said to have been well looked after by the man for whom they had been smuggling, and an extremely handsome solatium was awaiting their release from prison. Nothing short of capital punishment, if that, would have been a real deterrent! Despite all the difficulties of the problem, however, smuggling could probably have been kept within reasonable bounds if the original pivotal price had not been greatly exceeded. For it seems doubtful whether smuggling on the grand scale as distinct from the petty operations of native fishermen on their own initiative, would have been worth while at prices below 1s. 6d., and though the degree of restriction rather than the price was the controlling factor, yet undoubtedly the extremely high prices of 1925 did stimulate the building up of highly organised large-scale enterprises, and, having been perfected, their operations were continued even after the price had fallen much below the level required to bring them into existence in the first place. The potentialities of smuggling must always be considered by the makers of restriction schemes.

Other forms of evasion may conveniently be considered here. It must be realised that every European estate, every Chinese estate, every Malay small-holder, and every Asiatic rubber dealer regarded the restriction legislation as unfair to himself individually and therefore fair game for exploitation and evasion in his own interests. The European estates, unfortunately from their point of view, found the opportunities restricted, and their principal opening was in the matter of assessments, though even that provided little scope after the first year. But some of the Chinese estates discovered that various tricks could be played with export licenses. One example may perhaps be given. An export license was a paper divided into two parts; the top half contained particulars of the estate and the amount of rubber exportable during the quarter, and the lower half was a blank for the entry of the shipments as they restriction on account of its interference with

were made. The holder would by one means or another obtain an unfilled spare form, and when the lower half of his original form was filled with entries amounting to his exportable allowance, it was carefully torn off, and the top half of the original would be joined with stamp paper to the blank lower half of the spare form, the top half being torn off and thrown away. This torn and mended document would then be submitted with some such explanation as "A terrible thing nearly happened, tuan. My boy was just tearing up this license, and I only just got the pieces in time." If realistically done, little could be said—at any rate on the first occasion!

Quantitatively, however, such tricks were of little importance. The possibilities of the "fair game" were, however, enormously greater in respect of the export coupons issued to holders of less than 100 acres. These were virtually, though not legally, negotiable documents, so to speak payable to bearer, and at the beginning of restriction they were printed by the Survey Department of Malaya, and accepted without any safeguards, no attempt being made to trace their antecedents or their history. There was certainly a large number of forged coupons in circulation during the first year or two, though no figure can possibly be ascertained. The trouble, however, was so well recognised that later the firm of De la Rue was called upon to do the printing, and the same sort of care was taken as with Bank of England notes. Each coupon bore a serial number, and as they were collected by the Customs Officers at the ports, they were returned to a central office in Kuala Lumpur for checking. Any dealer who handed to the Customs a coupon which this checking later proved to be a forgery, was held responsible; this made the dealers very careful, and forgery of complete coupons was effectually stopped after the first two or three years. But it was still possible to tamper with the rubber stampings showing the District Office at which the coupon was issued, and thereby coupons valid for use in one district could be made valid for use in another district. Some District Officers evolved a more elaborate system of records of their own—for example, a card index was kept corresponding to the serial number of every coupon issued, and these cards showed the number of the holding for which the coupon was issued, the date of issue, etc., and the thumb print of the recipient as his receipt. This made possible a reasonably adequate check. But many District Officers did not bother to this extent, for nearly all of them objected to the performance of their proper normal duties, and though undoubtedly the vast majority adequately performed the additional duties laid upon them by the restriction legislation, few went out of their way to add voluntarily to their burdens in this respect. Some few, however, took the line that they were being asked to administer an absurd and impossible piece of legislation, and that the sooner it damned itself the better, while more were inclined to adopt the attitude, " If you will have such a scheme, this is only the sort of thing you must expect." The scope for evasion and fraud varied therefore in different districts, but it should be realised that even the most complete precautions could not prevent the buying and selling of coupons which began in 1926, when the percentage exportable rose to 100 and production failed to reach the assessed standard. This new line of merchandise developed everywhere on quite a substantial scale. The Asiatic money-lenders, shopkeepers, and so on—as well, according to general report, as some Europeans—bought up coupons from the small-holders as a speculation on restriction being tightened again in due course; the customary buying price was half the current value of the rubber which the coupon represented, and the buyers hoped to resell at the full current value when in due course the small-holder's exportable allowance was again reduced below what he desired to produce. The possibility of the failure of production to reach the assessed standard was really never foreseen: if it had been, presumably both export licenses and coupons would have been valid for a definite period only.

Many other forms of evasion were attempted, but most of these were quantitatively unimpor-Sufficient has been said, however, to show how necessary it is that the designers and administrators of a restriction scheme should realise that even when the producers as a body are in favour of restriction, it is in the immediate interests of each individual to evade the scheme, and that the utmost precautions are necessary. It is a lesson which cartels in manufacturing industry have learnt by bitter experience, and when Governments take a hand in the administration of restriction schemes, they should apply about the same standards as they would apply in the matter of heavy taxation, and the more law-abiding citizens should realise that the stringency of regulations and inspections is not only in the common interest, but is also a defence of their own interests against their morally weaker brethren.

This disquisition on the fallibility of human nature leads on to the consideration of an even more serious problem, that of bribery and corruption. It is necessary to consider this unpleasant subject, because it is a very important factor in the pros and cons of artificial control in practice, especially if the government service is in any way concerned. It is a subject on which exaggeration is as easy as it would be mischievous; on the other hand, it would be the greatest disservice for a student of restriction schemes to play the ostrich game in this matter.

In the case of rubber restriction, it must be realised that the subordinate officials of the Civil Service of Malaya are mostly Malays, and that in the ordinary way "graft" of a minor kind is general with all Asiatic officials. Actually, in the ordinary business of government, the native clerks, etc., can do little beyond hastening or retarding very slightly the business of a particular person, who in most cases probably realises this well enough, but they nevertheless receive "palm-grease" all the time from native applicants, because the practice is so deep-rooted in the Asiatic mind. For example, in the law courts, the clerks receive such palmgrease, though the applicants know perfectly well that the British judge will not be influenced thereby one iota. In other words, it must not be supposed that graft was a thing unknown in the Malay Civil Service before restriction was introduced. But when restriction appeared against this background, it brought this vital change, that in its administration there really was scope for the native officials to do something in return for a suitable present. For making a "clerical error" by writing 20 instead of 10 acres in an assessment, a native clerk would receive a bribe amounting to perhaps a year of his salary. It was physically impossible for the District Officers to check everything, and if discovered, the clerk had plenty of plausible The temptation was tremendous, excuses. because the bribes which it was worth while to offer were so enormous compared to the income of the recipient, and because the risk of detection, and still more the risk of actual prosecution, were so small. It may be doubted whether all London clerks at salaries of f_{4} or £5 a week would consistently resist the temptation of bribes of anything up to £500 for making such clerical errors, when the advantage was not obviously at the expense of anybody. The actual extent of bribes received must, however, be distinguished from the extent of the defalcations which were made in return; probably in many cases native officials accepted bribes, but gave little in return. Nearly every District Officer during restriction complained that his staff were absolutely corrupted, but such complaints really imply that he could not trust any of his clerks, and not necessarily that he knew that one and all of them were actually and repeatedly falling under the temptation. There is, however, little doubt that corruption was fairly widespread and general amongst the clerks in the district offices, and when these clerks were sent out in 1923 to check the assessments of small-holdings, their temptations were increased by the still greater scope for deceit and the still smaller risk of detection. Undoubtedly there was also an increase in corruption amongst the customs officials, while many people thought that there was a considerable amount of collusion between smugglers and the preventive launches, etc., though direct evidence of this is naturally not available.

It cannot, however, be said that corruption was confined to native officials. No one in Malaya has any doubt about the integrity of the regular British officials concerned with restriction. But considerable doubt arises in connection with the ex-planters and others, who were recruited as restriction officers to check the assessments of small-holdings, etc. From being "down and out," some of these men shortly adopted a standard of life far in excess of what their salaries would have provided. Circumstantial evidence alone is available, but there seems little doubt that many of them did accept bribes. Whether they did, in fact, give anything by way of a return, is another matter; it is said that some of them openly admitted that they accepted bribes, but at the same time stoutly maintained that they never gave anything in return. It is obviously very difficult in a country like Malaya to obtain a supply of entirely trustworthy Europeans to provide for such a temporary increase in the work of Government administration. Restriction meant that many estate assistants were discharged; deprived of their normal occupation by restriction, it was perhaps only natural that the morally weaker among them should make the most of the situation, and try and get one back on the cause of their discharge. Even the acceptance of bribes from natives was, of course, a very serious matter for the prestige of the British administration.

Finally, there is the effect of restriction on the morals and morale of the native population in general, and in particular the owners of small-holdings of rubber. Every small-holder tried to claim more than he should, and the absence of any adequate check on their statements during the first year or two provided a great temptation both for the small-holders themselves and for the headmen of villages. Again it must be pointed out that many European estates would have done the same, only their opportunities were so much restricted,

just as many people in England have few scruples about cheating railway companies or customs officers, and many more would do so if the odds appeared more favourable. The real importance of this type of dishonesty on the general morals of the community can be easily over-rated. It is easy to complain that every honest fisherman in Malaya was corrupted for life by turning smuggler when that temporarily became a profitable profession. The same is true of the small-holders, and even of the Government service. With the end of restriction the potential sphere of corruption narrowed immediately to its former relatively unimportant proportions, and those District Officers who feared the worst are now the first to admit that the demoralising effects of restriction on the native civil service and in the Malay villages have passed away with unexpected rapidity, leaving no permanent scars. But while restriction lasted, the trouble was undoubtedly widespread and serious, and it seems unlikely that it would have cured itself, however long restriction lasted and whatever remedies were applied. Bribery and corruption must be reckoned a definite item on the debit side of all restriction schemes, especially those involving Government administration, though doubtless its precise importance would vary considerably in different countries.

(4) The Revision of 1926.

A good deal has already been said, incidentally to discussions on other subjects, concerning the attitude of the British Government and the industry during the price boom of 1925. The view has been expressed that the British Government was right not to sanction additional releases unless it was prepared to abandon the mechanical basis of regulation altogether, because any interference would have destroyed the great advantage of a mechanical basis, namely, that all concerned do at least know the limits and nature of the control. At the same time it was inferred that the British Government would have done wisely to take the plunge and abandon mechanical regulation. It must, however, be made clear that for practical purposes such action would have virtually necessitated the abandonment of restriction altogether, for it can be regarded as certain that neither the Government nor the industry would have been prepared for indefinite continuation of an arbitrary scheme. These conclusions should not, however, be pressed to extremes; doubtless it would have been feasible to reintroduce a mechanical scheme for a short period, say a year or so, if an immediate termination

of restriction had been deemed undesirable. Equally it is not pretended that the additional 5 per cent. release granted in February 1926 so as to bring the percentage exportable to 100, really constituted an abandonment of the mechanical basis of regulation. But if a year previously, when it was clear that the price was getting out of control, the percentage exportable had suddenly been increased from 55 to, say, 80, if not 100,* which was the sort of action necessary to remedy the situation, that would have seriously, and so to speak permanently, undermined mechanical regulation. No such action was, however, taken, and speculation as to the possible policies which might have been pursued if it had been taken, must give place to a consideration of the situation as

it actually was in the spring of 1926.

Briefly, the central facts were that full production had been nominally restored just when the supplies of rubber coming forward were beginning to outstrip the current rate to which demand had been reduced by the results of the boom, namely heavy manufacturers' stocks, an increased use of reclaimed rubber, and a temporary decrease in consumers' requirements as the result of Mr. Hoover's economy campaign. Prices had fallen to half their level at the peak of the boom, † and there was every prospect that they would be halved again within the next few months if no alteration was made in the restriction scheme. If restriction was terminated now that 100 per cent. release had been achieved, it was fairly clear that for a time world supplies would exceed world consumption, and therefore critical conditions comparable to the 1921 situation would ensue. But it was also reasonable to suppose that the expansion in the motor industry and the generally high level of prosperity in the U.S.A., which showed no signs whatever of any check, would before very long result in a resumed increase in rubber consumption. Further, at that time there seemed little likelihood that the large use of reclaimed rubber, which the high prices of 1925 had stimulated, would continue if the price of crude rubber dropped to Is., though admittedly this view would probably have proved erroneous. Bearing in mind also the depletion of the world's stocks, a strong case could have been made out, even at the time, for supposing that conditions of excess supply would not have continued for long, and that equilibrium might have been achieved in, say,

eighteen months' time. Looking backward, such expectations appear even more reasonable, for even in respect of reclaimed rubber, it was the continuance of relatively high prices for crude rubber which accustomed the American manufacturers to the extensive use of reclaimed, and thereby taught them its virtues so much more quickly than would otherwise have been the case. It may therefore be concluded that restriction could have been terminated in the spring of 1926 without causing producers a greater loss than they should have been able to bear, especially if account be taken of the opportunities of accumulating reserves which they had enjoyed during the boom. From the rubber manufacturers' point of view, a rapid decline of price to 1s. or under would have been extremely awkward in view of the large stocks bought during the boom, and of the forward contracts which many of them had made. But such difficulties could have been much reduced by organisation on their part along some such lines as did in fact take place, and in any case it may be doubted whether the termination of restriction in 1926 would have involved them in losses more serious than those which they actually incurred in 1928. Taking all things into account, the American rubber manufacturers would not have had any really substantial ground for serious complaint.

If, however, the risks of summary termination seemed too great, the obvious alternative was to continue restriction with, if anything, a reduced pivotal price, say 1s., and in general such modifications as seemed calculated to bring it to as successful an end as might be within two or three years. For in 1926 * the information available concerning the new plantings of Dutch native rubber was at least sufficient to point unmistakably to the absolute necessity of terminating restriction in British territories before these plantings reached maturity. The game was up, and the failure of the Colonial Office and the R.G.A. to realise this far more fully than they appear to have done, is one of the several mysteries in the history of rubber This failure will later be conrestriction. sidered in more detail,* but while it was undoubtedly a factor of importance, it was not of decisive importance. For even if the necessity to terminate restriction at any early date was not appreciated, it is now clear that there was no possible justification for the raising of the pivotal price from 1s. 3d. to 1s. 9d. This matter is still wrapped in more or less impenetrable mystery. It is known that some leaders of the industry, both in London and in Malaya, emphatically condemned the move at the time,

^{*} It may be argued that owing to shortage of labour actual production would not have responded fully for a long time; this may be granted, but such a step would have effectually crippled the plans and activities of the speculative element in the market.
† The average for the February-April quarter 1926 was

^{*} See Section V below.

while many more were extremely uncertain as to its wisdom. It is not known whether the London Advisory Committee was formally consulted on the matter, and if it was, how the voting went. It seems fairly certain that the Government of Malaya neither proposed any such scheme, nor were consulted by the Colonial Office. The only official information on the subject is contained in the speech of the Secretary for the Colonies during the House of Commons debate * on the termination of restriction. The relevant passage is as follows:

"The conclusion we came to then, rightly or wrongly, was not to abolish the scheme, but to endeavour to make the scheme more elastic. We approved of a substitute scheme giving wider steps and enabling the control to adjust itself more rapidly to the rise and fall of prices. At that stage you could also alter the pivotal

price.

From first to last I was in close touch with Lord Stevenson as chairman of the advisory committee, and, as I understood, he was either formally meeting or informally keeping in the closest and continuous touch with the members. I also personally attended more than one meeting of that committee. I will say this: The general view of all those I had to deal with, and as reported to me by Lord Stevenson, as well as one of the great American consuming interests, was that the essential thing was stability, and that to declare, when the price for over a year had been well above 3s., that is. 3d. was our pivotal figure would have no relation to reality at all. At that time large forward contracts were being made for long periods, and, more than that, being refused at over 2s. At that time it seemed entirely proper and reasonable, if you wished to secure stability, to secure it on a figure somewhat nearer than is. 3d. to that which the industry thought would be the price

for years to come.

"I would say that if there be any blame for fixing the figure of is. 9d., I will take it myself. I will also say it was only after weeks of discussion with Lord Stevenson that I persuaded him to come down from the figure which he wished and to make the pivotal figure is. 9d."

At first sight and with our present knowledge this explanation seems either too ingenuous to be the whole truth and nothing but the truth, or to reveal what seems to-day a simply astounding disregard of the essential features of the situation, and of the needs of the immediate future so far as the policy of restriction was concerned. This tender care for the interests of consumers in respect of stocks already bought and contracts for future

delivery, hardly tallies with the earlier or with the later conduct of restriction. The reference to one of the great American consuming interests is correct as it stands, and must not be taken as implying reference to the American Rubber Association, though it is of course true that American manufacturers were not by any means displeased with the decision to raise the pivotal price, and that others of them may have made more private representations. What does seem clear is that Lord Stevenson wanted a still higher price, but that the Colonial Office, and most probably some of the members of the Advisory Committee, would not follow him that far. The real question seems to be how and why Lord Stevenson, however much he was impressed by the unfortunate position of the American manufacturers, could possibly have justified to himself the idea of maintaining prices at a figure more than double the average costs of production; prices which were bound to give a most powerful stimulus to further new planting in the Dutch East Indies and elsewhere, and to the rapidly increasing use of reclaimed rubber. If the conditions of demand and supply proved to be such as to keep the price above is. 3d., restriction would be unnecessary and could remain in abeyance; the industry could safely be left to look after itself, for any price above that level was reasonably, if not extremely, profitable. If a price of 1s. 9d. was really deemed desirable in the future interests of the industry, and if such a price were not maintained naturally, it could only be so maintained by restriction, and the resulting increase in costs of production would probably go far to rob such a price of its assumed advantage.

Lord Stevenson could not have been prepared deliberately to sacrifice the best interests of the producing industry for the temporary benefit of the manufacturers, and the only reasonable conclusions are either that he did so for some other objective, or that he held a completely erroneous view as to the future relations of supplies and price. Many well-informed persons believe the former, and that the reason was the desire to strengthen the American exchange, which was weak at the time as the result of the restoration of the gold standard in this country. In their view, Mr. Churchill, then Chancellor of the Exchequer, was the villain of the piece, and Lord Stevenson merely his accomplice. Doubtless the effect on the American exchange was considered, as well as the effect on the American manufacturers, but there is no available evidence that the former, any more than the latter, was the decisive factor. We are therefore left with the conclusion that

* April 26, 1928.

Lord Stevenson laboured under an entirely erroneous view of the situation, and genuinely believed that at least no harm could come to the producing industry if the pivotal price was raised.

With our present knowledge of subsequent history, this may seem incredible. But it is necessary to rid our minds of all such knowledge and to try and appreciate the outlook as it was in the minds of Lord Stevenson and many others at the beginning of 1926. It has been said above that "a strong case could have been made out, even at the time, for supposing that conditions of excess supply would not have continued for long, and that equilibrium might have been achieved in, say, eighteen months' This conclusion has been used above in support of the contention that restriction could have, and should have, been removed without causing producers too serious losses. But to Lord Stevenson and others at that time. it may quite well have seemed a solid argument in favour of continuing restriction so as to bridge over the eighteen months' interval and minimise the losses of manufacturers and the difficulties of producers during the period before equilibrium was re-established. It must be remembered that London was extremely ignorant about Dutch native rubber and even reclaimed rubber; and very sceptical as to the information which it did possess. The general opinion was that in view of the events of 1925 and the enormous expansion in consumption, the available supply of rubber would be inadequate in three or four years' time, and in this respect London opinion was fortified by the beliefs of the American manufacturers. Thus it is not really so incredible as it now appears that Lord Stevenson may have visualised a famine price-level in, say, two or three vears' time. With such an idea, it naturally seemed absurd to allow prices to be forced down to the original pivotal level of 1s. 3d. (and even probably below that, for restriction would necessarily take time to curtail supplies), if a little later they were to shoot up violently. The greatest possible stability was desirable in the interests of all concerned, and to maintain the original pivotal price would be simply to provoke extreme instability, whereas to hold prices at a level of is. 9d., or even higher, by a temporary return to a restricted production seemed a perfectly sound and reasonable policy from the producers' point of view, and was, of course, eminently satisfactory to the manufacturers.

The raising of the pivotal price was an act of folly in the light of after events, but it was not wholly inexcusable, except in so far as it can be said that at the time London ought to

have paid far more careful attention than it did to Dutch native rubber planting and the development in the use of reclaimed rubber. Nevertheless, the scepticism which was directed to these two matters, might well have been extended to the general proposition of any attempt to hold up prices artificially at a level roughly double the cost of production, however well that may have suited the desires of the manufacturing consumers at the moment. It seems difficult to deny that the boom of 1925 had engendered that lack of normal caution in the minds of all those concerned with the producing industry, of which history shows so many examples in similar circumstances. With the raising of the pivotal price, the restriction scheme of 1922 may be said to lose all interest for the student of the economics of conscious The other revisions made in 1926 were undoubtedly a step in the right direction towards the improvement of the elasticity of the scheme. But the raising of the pivotal price really turned the scheme into a mere attempt at monopoly, and a more foolish one than most of the many which history records. As has been said, the game was up already, and the only sound policy was to retreat in such a manner as was best calculated to retain as far as possible such advantages as had been secured. Much might still have been saved. Restriction had got the industry, and indeed the Government of Malaya also, out of a very nasty hole in 1922, and while the boom had antagonised consumers and stimulated a great deal of new planting in other countries, it had also given the British industry an opportunity to build up reserves, both financial and agricultural, on a substantial scale, the lack of which had made the crisis of 1921–22 so dangerous. Restriction up to 1926 may be judged to show a favourable net balance from the point of view of the British industry, though its exact extent must be entirely conjectural. From 1926 onwards this favourable net balance was almost deliberately turned into a serious net loss, the extent of which cannot yet be determined. If the industry was deliberately sacrificed on the altar of the American exchange, the issue must be judged on wider and national grounds, and the sacrifice may have been justifiable. But if all such objectives are ruled out, we are left with the melancholy but important reflection that Mr. Hoover may be right in maintaining that all attempts at artificial control inevitably degenerate sooner or later into attempts at monopolistic extortion, and that the real objections to conscious control are not economic, but arise from the weakness of human nature under the dominance of selfinterest, greed, and vanity.

(5) THE CLOSING STAGES AND THE END.

As has been said above, from 1926 onwards the restriction scheme ceases to have the same interest as a genuine experiment in conscious control. The problem of Dutch native rubber receives special consideration in Section V below, while the subject of reclaimed rubber is most conveniently treated in the next section along with other developments on the consumer's side. The Unused Coupon problem, which provided such controversy during 1927 both in Great Britain and Malaya, does not require detailed treatment, for as an immediate practical problem retrospective legislation was a virtual impossibility, while its permanent interest lies in the lesson that any future scheme should provide for a definitely limited period of validity. At the time no one foresaw the proportions which this problem might assume, and for this oversight there is considerable excuse. If the problem had been foreseen, it could easily have been solved; there would have been no hidden difficulties or inequities in limiting the validity of all forms of export rights to a period of, say, one year, or even six months. These were the main issues during the closing stages, and little more need be said except perhaps to stress the platitude that as the British control of production fell from approximately 75 per cent. to the neighbourhood of 55 per cent., so more and more drastic restriction was required in order to effect the same reduction in the world output, quite apart from the additional difficulties created by the accumulation of unused export rights and coupons. When Great Britain controlled 75 per cent., a 20 per cent. reduction of the world output could be achieved by restriction to the extent of 30 per cent., but with only 55 per cent. control,* the necessary degree of restriction rises towards 40 per cent., as the Colonial Secretary pointed out to the House of Commons in the debate on the termination of restriction. "We were discovering that our power to fix the price was growing less and less day by day. We were discovering it increasingly during 1926 and 1927." point is obvious, but very important.

There seems no need, for the main purpose of the present study, to trace the gradual realisation by the Government, the industry and the general public that restriction was doomed, or the resulting growth of a militant opposition. Equally little good will be served by disquisitions on such issues as whether the successive official announcements in the autumn and winter of 1927–28 were unfair and misleading.

of this study.

Something must first be said as to the attitude of the various parties immediately concerned. The attitude of the Advisory Committee and the R.G.A. was that while restriction could not, and should not, be continued indefinitely, there was no necessity for immediate repeal, and that the proper course was to reduce the pivotal price, preferably in stages, and to introduce other modifications aimed to achieve 100 per cent. release in, say, two or three years' time, when it might be supposed that demand would have expanded to the necessary extent. It was their opinion that immediate repeal would leave the work of restriction only half done,* or that at least much might still be salved from the wreck. It must be remembered that London was still extremely sceptical about Dutch native rubber planting, having taken no steps to investigate the matter. The attitude of the Colonial Office is a matter of conjecture. We know from Mr. Amery that the Colonial Office had refused to adopt the still higher pivotal price desired by Lord Stevenson in 1926. It may be that the price as actually fixed was agreed upon only with misgivings, and that these misgivings grew rapidly during 1926. For it seems a significant point that on the death of Lord Stevenson in June 1926, an administrator, Sir Matthew Nathan, and not another business man, was appointed chairman of the Advisory Committee. It is just possible that the Colonial Office had already realised that Lord Stevenson's insistence on a higher pivotal price was a mistake so fundamental that the liquidation of the scheme in the near future was inevitable. But if the Colonial Office had been convinced of the urgent necessity of repeal, there was no reason whatever why it should not have terminated the scheme on its own initiative.

deliberately or otherwise, whether the Committee of Civil Research was or was not a packed jury," whether sufficient care was taken as to the exact hour of the Prime Minister's announcement of the death sentence. or how much New York gained by the actual conduct of that affair. These and other similar issues have little more than temporary interest, except in so far as they provide material for study and reflection on the general problem of the relations of Governments to particular industries. The decision to terminate and the method of termination by the giving of six months' notice in advance, do, however, offer some problems of more permanent interest, which merit attention from the point of view

^{*} The Colonial Secretary gave a figure of 50 per cent., but this is too low.

^{*} See Mr. Macfadyen's Presidential Address to the R.G.A., 1928.

Probably the Colonial Office was much more fearful about the future, especially in respect of Dutch native rubber, than the R.G.A., but the fact that no such action was taken, and that the Cabinet took over the matter, at least suggests that the Colonial Office was either on the side of the industry or in a most undecided state of There are many well-informed persons who are convinced that it was the Foreign Office which really brought the matter before the Cabinet as the result of diplomatic pressure from the U.S.A. Such a suggestion was made by the Leader of the Opposition in the House of Commons' debate, but it was categorically denied by the Secretary for the Colonies: "The prompting in this matter came from the Colonial Office and from nowhere else." The Under-Secretary for the Colonies on April 12,* in Singapore, emphatically denied that America was either thought of or discussed when the Cabinet considered the question of an inquiry. From opinions and such evidence as can be collected in the U.S.A., there is no evidence that the earlier diplomatic representations were continued into 1928, or that any serious pressure was ever applied. Mr. Hoover has often bemoaned the limitations of the diplomatic weapon in connection with foreign controls of raw materials, and never held out to the rubber manufacturers much hope of relief by that means. While the historian cannot, unfortunately, place too much reliance on the statements of Ministers, due weight must be paid to this absence of any evidence from the other side of the Atlantic. On the whole, it seems doubtful whether the Foreign Office had The point is of much to do with the matter. interest not so much with special reference to the case of rubber, but with general reference to the possible intrusion in a governmentally controlled restriction scheme of political considerations remote from the industry concerned.

It may be noted in passing that there are other persons who believe that the Treasury archives will eventually reveal much information on this matter. They consider that the whole business of restriction must be viewed against the background of the American exchange; that owing to the weakness of sterling the Treasury turned the scales in favour of restriction in 1922, instigated the raising of the pivotal price in 1926 in order to support the gold standard, and now in 1928, when sterling could look after itself, allowed the termination of what had never been favoured It is possible that by the Colonial Office. the Treasury had something to do with the raising of the pivotal price, but there is really

* The House of Commons' Debate was on April 26.

very little support of even the most conjectural kind for the idea that the Treasury had much to do with the imposition of restriction or with its removal. It is true that the Secretary for the Colonies cited, as one of the reasons for terminating restriction, the argument that, "The Treasury is undoubtedly concerned with the fact that this great export industry in British hands, of which the product is largely consumed in the United States, plays a most important part in our balance of trade, and in the maintenance of the gold standard . . . ," * but his point was not that the balance of trade could dispense with restriction, but that the continuation of restriction was becoming more and more detrimental to the satisfactory maintenance of the balance of trade. It is, in fact, more in accord with the general position to suppose that the Treasury may have been active in instigating termination for such reasons, rather than that it withdrew a previous support.

On the whole it seems most satisfactory, with our present limited knowledge,† to suppose that the Colonial Secretary had become very worried about the whole position and prospects, but that even if he had not absolutely decided on termination, yet in view of the much less fearful attitude of the industry and its general opposition to the idea of repeal, he decided to consult his colleagues, as he alleges that he did, rather than take action on his own initiative. In his apologia to the House of Commons, he cited five main reasons for taking this step: first, the increase in production by the N.E.I. and other producing countries outside the scheme; secondly, that restriction was proving detrimental to productive, and therefore to competitive, efficiency; thirdly, that it was proving detrimental to the future prospects of our balance of trade; fourthly, the very great difficulty of dealing with smuggling and the corruption of native staffs; and fifthly, the growing opposition to restriction in Ceylon. "All these considerations weighed in our minds, but we finally, as from the Colonial Office, approached the Cabinet towards the close of the year and asked the Cabinet for an independent impartial inquiry," and he goes on to justify the appointment of an independent impartial inquiry in words which strongly suggest that he knew the Advisory Committee would not favour termination. The matter thus brought before the Cabinet, he probably found strong support for

^{*} House of Commons' Debate, April 26.

† Supposedly well-informed gossip at the time considered that Mr. Baldwin himself was the prime mover, both in the decision to terminate and in the choice of method. Mr. Amery was said to have been in sympathy with the industry's proposals, and in his defence merely acting as an official mouthpiece. But there is no evidence to substantiate these ideas.

his own feelings, especially perhaps from the Foreign Office and the Treasury. Restriction had proved a thorough nuisance from the point of view of our political relations with the U.S.A., while it must inevitably have been a thorn in the side of the British delegates to the Geneva Conference of 1927. From the Treasury's point of view, the scheme had outlived any useful purpose which it had ever served. In general, the Cabinet either clinched Mr. Amery's mind or gave him the necessary assurance of support against the probable attacks from the industry. In short, the British Government decided to terminate restriction as soon as might be because they had reached the conclusion that the present and prospective advantages of restriction were now being far outweighed by its inherent difficulties and drawbacks; its administration was, and always had been, a thorough nuisance from the point of view of the Government, and now British interests were getting nothing out of it. In all this, there is little directly at variance with Mr. Amery's account, except that it seems hard to believe that the Cabinet was not in fact the jury, and the Hambling Committee a judge whose only duty was to pronounce an inevitable sentence.

We therefore reach an interesting question, whether the Colonial Office knew what was in the true interests of the industry better than the industry itself; or in other words, was a more or less summary termination of restriction the right policy? Looking backwards, we can now see that at the end of 1928, production and consumption would have been very nearly in equilibrium, even if there had been no restriction. Without much doubt the 100 per cent. release would have been reached under a modified restriction scheme such as the R.G.A. desired (with a pivotal price of, say, 1s.) by the end of 1928, and then in accordance with their proposals the scheme would have been terminated. Undoubtedly this would have saved serious losses; as the present writer said in August 1929: "It would seem, in the light of after events, that the time and manner of the removal actually chosen had the effect of sacrificing the fruits of restriction just when they were about to be secured." But it must be remembered that in the spring of 1928 no one foresaw the enormous increase in the U.S. consumption during the second half of 1928; nor is it reasonable to suppose that it should have been foreseen. Even in July 1928 the expert statisticians of the American rubber manufacturers were forecasting the U.S. absorption in 1928 at 390,000 tons, whereas it eventually totalled 440,000 tons. Moreover, it may be

remarked that the inevitable inelasticity of a quarterly sliding scale, however carefully modified, might possibly have led to another squeeze of prices which would have created a very difficult situation. Equally no one foresaw the great increase in normal yields which had come about in Malaya, but which was put down for many months to "flush" production. If restriction had been removed when 100 per cent. was reached at, say, the beginning of 1929. production would have quickly made up any shortage of convenient stocks, and then shot ahead of demand as it actually did. By the autumn of 1929 producers would have been little better off than they actually were. Nevertheless, if the increase in consumption had been foreseen, restriction should undoubtedly have been continued in a modified form as the R.G.A. desired.

Assuming, however, that this increase in consumption was not foreseen, as was the case, there can be little doubt that speedy termination was the right policy. In order to cover the increased costs of a restricted output, the pivotal price could hardly have been less than is., and probably if the rubber industry had had its way, it would not have been less than is. 3d. and possibly is. 6d. Even at is. this would have been playing with the fire of the Dutch native rubber potential production. Summarising the conclusions which will be reached in Section V, it may be said that at this price a sufficient supply of labour would have been attracted to obtain the potential output from at least a large proportion of the new plantings; in 1923-24 planting had been resumed on an extensive scale, and these trees would have reached tappable age, on native standards, from 1929 onwards. The policy of attempting to reach 100 per cent. exportable would have almost inevitably become a policy of tightening restriction more and more in order to maintain the price at 1s. Eventually the British industry would have been very badly burned. There is here no assumption of a stationary demand; the argument is based on the expectation of a continuance of the past upward trend. But when all allowances are made, it can hardly be doubted that the industry's scheme was of the nature of a desperate gamble, and that with the outlook as it appeared in the spring of 1928, the Colonial Office and/or the Cabinet were thoroughly justified in refusing to play.

This conclusion has a general as well as a special interest with reference to the oftenmade assumption that the leaders of an industry must know its interests better than a Government Department, and the corollary that if the Government of a country must take a hand in a scheme of artificial control, that hand should be limited to implementing the wishes of the industry in so far as that can be done without damage to the interests of the State. While the British Government may have felt that its own interests, and especially those of the Government of Malaya, would be prejudiced by the continuation of restriction, this was mainly because it felt that the continuation of restriction would be prejudicial to the interests of the industry; the interests of both are so largely intertwined. If it be asked why the industry favoured continuation, the answer must be that all business men instinctively think in terms of the short period, and it is only the comparatively few who can rise above instincts which have been bred in them perhaps by their early training. This is specially true of rubber production, because while the producer must try and think seven vears ahead, the very length of that necessary period of gestation means that all his thoughts and plans rest on the most insecure premises, and by experience he knows that the unexpected enters at every turn. On the issue of restriction, all the main interests in the trade had their special reasons for preferring extension to termination; at a price of 1s. 6d. or even of 1s. 3d., producers would fare better, or as well, even if that involved restriction to 60 per cent., than they would on full production and a price of, say, 9d. Manufacturers were naturally in favour of a stationary or even a gradually declining price as compared with a sudden drop, on account of their stocks and forward purchases. Brokers, a by no means uninfluential section in London, naturally preferred restriction and a relatively high price, because their remuneration is on a percentage of the sales price, and they could hardly expect to handle double as much rubber if the price were halved. Thus all the main interests in the industry had reasons of their own for desiring a continuation of restriction, and if in their quieter moments they reflected upon the longrun possibilities, there could be no certainty that even the most obvious and probable results would be actually realised. There are times when outsiders, and even Government officials, can see more clearly than the experts, and there is no fundamental reason why a Government should not operate a scheme of economic con-

trol at least as well if not better than the industry concerned.

This general approval of the British Government's policy of the speedy termination of rubber restriction must, however, be qualified. For the decision to give six months' notice there is little to be said. The only substantial argument in favour of this course was that immediate repeal would result in a terrific scramble for labour among themselves by the plantations in Malaya. It cannot be conceded that six months' notice wholly avoided this difficulty a very considerable scramble ensued as it was —and it is certainly open to serious objections in respect of the effect on stocks and prices, for if there had not been such an increase in consumption during the latter half of 1928, the position would certainly have been much more awkward and difficult than it actually was. Mr. Amery's defence was that he was besieged by persons inside and outside the House imploring him to give an undertaking that the scheme would continue at least until the end of the current restriction year. In the main, these appeals must have come from manufacturers and merchants, who, fearful as to their stocks and forward purchases, yet hoped that a postponement would hold up prices to some extent, and enable them to beat a more orderly retreat. Such hopes were ill-founded, for the market promptly based the price on the probable position on November 1. Nothing could have saved the inevitable losses on stocks and forward contracts, and the interests of producers were not really benefited by the notice. It would have been far better to sweep away restriction immediately as, indeed, many people thought at the time, and more have realised since. In this respect the British Government may be said to have lacked the courage of its convictions, and the experience of rubber restriction suggests a general primâ facie case that if a scheme of conscious control is failing, its demise should be achieved in the swiftest and most unexpected manner possible. In that way much loss may be avoided to producers.* while manufacturers will not be able to complain that their fellow competitors had the luck to steal a march on them by securing inside information or by any other

^{*} The history of sugar restriction in Cuba points to the same conclusion. $\mathring{}$

For practical purposes, the point of view of the consumer of rubber means the point of view of the American rubber manufacturers and of the government and citizens of the United States, since the U.S.A. consumed 65–70 per cent. of the world's total absorption during the restriction period; moreover, in no other country was the rubber manufacturing industry of sufficient importance to impress its views on the Government or the public, and partly for this reason the final consumer was nowhere else stirred to action in his own defence. United Kingdom is the second most important consuming country, but while the India-Rubber Manufacturers' Association vigorously protested at the imposition of restriction, the interests of the producer naturally outweighed the interests of the consumer, while the appointment of a representative of the manufacturers on the Colonial Office Advisory Committee went far to pacify their instinctive opposition. In this section an effort is made to trace the reactions which restriction evoked on the other side of the Atlantic, but no general survey of the reactions in other countries is attempted.

As late as September 1922 the general opinion of the U.S. manufacturers was that restriction would not be imposed, and that if it was, it would not effectively raise the price, since, with a current rate of consumption estimated at not more than 200,000 tons * per annum, and in view of the heavy stocks already in existence, ample supplies seemed available for a long time. It must also be emphasised that the vast majority—it might almost be said all with the exception of the U.S. Rubber Company, which was already a big producer—were ignorant of even the outstanding features of the crude rubber situation, and, in general, quite unfamiliar with the economic characteristics, organisation, and problems of the rubber producing industry. The announcement that restriction would begin on November I came as a surprise. On October 26 the directors of the Rubber Association of America met to consider the position. They decided to try private commercial negotiations before making any approach to the Government, and appointed a special committee for the purpose. This committee took the line that neither the U.S. manufacturers nor the U.S. Government could do

much by way of interference in view of American tolerance of the Brazilian coffee valorisation scheme, the sisal control, pools in the American copper industry, etc.; and that the only feature of the scheme to which objection could reasonably be raised, was its lack of sufficient elasticity. Mr. Firestone, however, thought otherwise *; in his view, the restriction scheme was a deliberate attempt at monopolistic extortion, which should be attacked and opposed in every possible way. But he failed to carry the committee with him, and therefore resigned from the Rubber Association so as to be free to pursue such a policy himself. The committee then decided to invite the Rubber Growers' Association to send a delegation to discuss plans for the protection of the mutual interests of consumers and producers. The R.G.A. at first refused, but after further correspondence accepted, and sent over three persons, Sir Stanley Bois, Mr. E. Miller, and Mr. P. J. Burgess. Between January 17 and February 10 this delegation was toured round innumerable factories,† and met informally a large number of the leaders of the American industry; various consultations were held between this delegation and the special committee of the Rubber Association of America. When the R.G.A. delegates had made it clear that any repeal of restriction was out of the question, the Americans concentrated on the need for greater flexibility, so as to ensure against any sudden rise of price above the pivotal level due to unexpected changes in demand, or against a temporary squeeze of prices by speculative manipulation, which they felt the scheme might easily facilitate. The British delegates returned with a definite request from the Americans that the R.G.A. should get the British Government to declare its willingness to allow emergency releases if the scheme proved insufficiently elastic. The R.G.A. replied with a refusal to recommend any greater elasticity in the scheme on the ground that "it would be undesirable to attempt to meet a hypothetical position which may not arise." But the American manufacturers later maintained that they had received at this time verbal promises from Lord Stevenson and Mr. Miller that action would be taken in the event

* Gossip attributed his attitude to the supposition that he was "caught short" of rubber, but in view of his subsequent activities, this is hardly an adequate explanation, even if true.

^{*} In December 1922, the Rubber Association conducted a hurried census of production preparatory to the visit of the R.G.A. delegation (see below), and was astounded to find that this showed a probable consumption during 1922 of no less than 275,000 toas—a figure which was later shown to be still 10,000 tons too low. The R.G.A. delegation is said to have been even more astounded.

[†] For the objective which the Americans had in mind in arranging these visits, see the evidence of Mr. W. O. Rutherford, Vice-President of the Goodrich Company, to the Committee on Interstate and Foreign Commerce, "We invited a Committee (of the R.G.A.) to come to America to discuss the situation. Primarily we wanted to have the British see that this new industry was going to expand. . . ."

of prices getting out of hand; this matter will be considered in detail below.

The report * of the British delegates to the Council of the R.G.A. on the general attitude of the American manufacturers was summarised under the following heads:

I. There is general appreciation of the need for the legislative measures taken.

2. There is keen desire to see stability of

3. No objection is taken to the pivotal price as a general level.

4. The fear is definitely expressed that the scheme is insufficiently elastic.

5. It is admitted that if their (American) forecasts of U.S. requirements are too optimistic, the results will fall on producers more heavily than on themselves as manufacturers; also that with present prices more reclaimed rubber will be used, and that their crude rubber requirements will be proportionately reduced.

The general tone of the report is that the U.S. manufacturers were by no means actively hostile, but on the contrary more or less complacent. With the exception of Mr. Firestone and his immediate supporters, this was a correct appraisal of the situation, as may be seen, for example, by the evidence which several leading manufacturers later offered at the inquiry by the Committee on Interstate and Foreign Commerce into the control of production and exportation of certain essential raw materials. The following quotation from the evidence of Mr. F. A. Sieberling undoubtedly crystalises the general attitude of his fellowmanufacturers at this time: "We bought rubber in Akron in 1921 and 1922 as low as 12 cents a lb., which was less by one-half than the cost of production, and practically that condition continued for two years. That was a temporary situation, and we manufacturers realised that it was only a question of time until business would become normal, and would be restored, and even expanding, and that this slack or stock of accumulated rubber would be absorbed, and we would finally get to the point where we would need probably more rubber than the world was growing. So when this question of the troubles of the rubber grower came up, we were sympathetic with the idea of doing something to give them a fair price. I will not say that we were so altruistic that we wanted them to make some money off us, but from the position of self-preservation, looking to the future, we said, 'We must ensure new

* See Bulletin of the R.G.A., February 1923.

planting.' So when the Stevenson scheme was introduced, the general idea of getting the rubber growers upon a more substantial basis was one that appealed to us." He then goes on to deal with their objection, the lack of flexibility in the scheme, which, it must be repeated, was the one real objection which he and his fellow-manufacturers had to the scheme. Apart from that, the American manufacturers, other than Mr. Firestone, were content; hence the great importance attaching to the alleged as-

surances given them in this respect.

For nearly two years—that is, until the beginning of the price boom in 1925—the American manufacturers as a whole concentrated on their own manufacturing problems, and devoted little attention to restriction or the problems of their crude rubber supply. It must be remembered that there were at this time between 450 and 500 manufacturers of rubber, but about fifty of these accounted for 90 per cent. of the total consumption, and of these the "Big Five" (Fisk, Goodrich, U.S. Rubber Co., Goodyear and Firestone) probably accounted for nearly one-half of the total consumption. These large firms, and perhaps a dozen or so medium sized concerns, may be said to have understood the British restriction scheme more or less clearly, but there is little doubt that the remainder of the industry had the very vaguest ideas about Competition was acute, not only between the big firms individually and the small firms individually, but between the big firms as a group and the small firms as a group. This latter form of competition arises mainly because the former buy forward their requirements three to six months ahead, whereas the latter buy only one or two months ahead. Consequently when rubber prices are rising, the small firms feel the pinch, and the big firms try and push them out of business by refusing to raise the price of their products until they in their turn have to replenish their crude rubber supplies; conversely when prices are falling, the small firms score. Though there was comparative stability of crude rubber prices during the first two years of restriction, the fluctuations were quite sufficient to emphasise this divergence of interests as regards selling policy, for a variation of I cent a pound often meant the difference between profit and loss in the prevailing state of acute competition. At this time there was little spirit of organised co-operation amongst the American manufacturers; each appears to have been absorbed in the problems of competitive manufacture, and to have assumed that ample supplies of crude rubber would be available. Restriction was not raising prices to an exorbitant level; indeed, the continuous decline from October 1923 to midsummer 1924 seemed to them to suggest that restriction was not to be taken very seriously, and with prices falling, and apparently ample supplies regularly available, it, therefore, also seemed to them only commonsense and prudence to reduce their stocks to a bare minimum.

After the visit of the R.G.A. delegates, the scene in fact shifts from Akron and New York to Washington. The same day that the R.G.A. accepted the invitation of the Rubber Association to send over a delegation, Mr. Firestone "decided to make an independent investigation of the restriction scheme, and sent Mr. W. D. Hines to England and Europe to study and report." * Following the return of Mr. Hines, he interviewed President Harding, the Department of Commerce and Senator McCormick, "presenting facts and figures to show the effect the restriction would have on America." On January o Senator McCormick addressed the Senate on the subject, and he later wrote a letter to Mr. Hoover, then Secretary of Commerce, on the general subject of rubber production as linked with the promotion of Latin-American trade. Mr. Hoover replied that in his view, both on account of the existing restrictions and the probability that a rubber shortage would be encountered within a few years, with or without restriction, an exhaustive crude rubber survey was desirable, and should be authorised by Congress. On March 4 Congress authorised the Department of Commerce to make an investigation of foreign control of raw materials essential to American industry, including rubber, and voted a sum of \$500,000 for the purpose, of which however one-fifth was in the President's discretion, and he allotted it to the Department of Agriculture for scientific experi-The Department of Commerce therements. upon established a special crude rubber section, which, with the assistance of an advisory committee appointed by the Rubber Association at the Department's invitation, began a survey of the world's actual and potential resources of crude rubber, and parties were sent out to the Middle East, Para, the Caribbean Islands, etc., and the Philippines during the summer of

Meantime brief reference must be made to the further activities of Mr. Firestone. On February 27, 1923, he had organised a conference of rubber manufacturers, automobile manufacturers and automobile accessory manufacturers, at Washington; in all 200 representatives attended, and also Mr. P. H. Lockhart, of the India Rubber Manufacturers Association of Great Britain, who was then making an unofficial visit to the U.S. Mr. Firestone's own account * of the results is as follows: "The conference passed resolutions extending support to the appropriation measure for investigation of rubber resources of supply then pending in Congress, and to co-operate with the British manufacturers in opposing the legislation, and to protest against it in any way that seemed desirable." He then continues: "I was unsuccessful in obtaining the desired cooperation of other American manufacturers. presume the reason for this was that they did not appreciate the conditions created by the Rubber Restriction Act, and had confidence in the assurances which were given them by the Rubber Growers' committee." Mr. Firestone was, however, undeterred; he proceeded immediately to the establishment of a headquarters in Washington for the gathering of data, statistics, and information from all rubber growing countries, and in May he "decided to conduct an independent investigation of new sources of supply, as I realised that the Government investigation would require considerable time, and could only report upon conditions without making recommendations as to what action should be taken by American manufacturers interested." He first turned his attention to the Philippines, but turned down that country on account of the existing land laws,† and the instability of the political situa-He then sent experts to Mexico, but found the political situation still less stable: his experts being "hustled out by the outbreak of a revolution." Panama was also turned down owing to shortage of labour. In December 1923 he tried Liberia, and was so well pleased with a preliminary report, that in April 1924 he sent a larger party which took over an old abandoned plantation t of 2,000 acres, and did some preliminary work in clearing the jungle "in order to determine the character of the labour and the actual cost of planting." Early in 1926 he was able to tell the Committee on Interstate and Foreign Commerce that he had ten experienced planters with their assistants in Liberia, and was shortly doubling that number, that during 1926 he hoped to clear 20,000 acres, and that his eventual scheme was to develop one million acres. § In September 1925 he leased 35,000 acres in Mexico with 350

Foreign Commerce.

† The chief difficulty was the limitation to 2,500 acres in any one ownership.

§ At the present time the area planted is about 50,000 acres.

^{*} See his evidence to the Committee on Interstate and Foreign Commerce.

^{*} See his evidence to the Committee on Interstate and

[†] This was the property of a British concern, which after paying no dividends from 1906 to 1921 went into liquidation in 1921, the lease of the property reverting to the Liberian Government.

acres already in Hevea and several thousand more in Castilloa. But he told the Committee that owing to labour shortage and unsettled political conditions, he feared he might not be able to make much of a development in Mexico. Whatever may be said of the wisdom of Mr. Firestone's efforts, the lonely courage with which he followed up his convictions cannot

fail to meet with applause.

Returning to the course of events in Washington, it may be noted that Mr. Hoover, as Secretary of Commerce, was not content to let things rest after the establishment of the crude rubber survey. Throughout the summer of 1923, a large number of articles, inspired by the Department of Commerce or in general under its ægis, appeared in the Press. These articles are careful to stress the point that the real reason for the Crude Rubber Survey was the anticipation of a rubber shortage by 1928-30,* and that it was not merely a reply to the British restriction scheme, which, however, was considered a very serious aggravation of the trouble, because, while it continued, there would be no new planting in Malaya and Ceylon. In March 1924 Mr. Hoover was roused to more definite activity. He addressed a public letter to Senator Capper on combinations of raw material producers, outlining the need for legislative relief through the legalisation of co-operative purchasing of imported raw materials where there is positive combination in control, just as exporters and manufacturers are permitted by the Webb-Pomerene Act to undertake joint selling agencies abroad under certain restrictions. This was in a sense a revival of an idea already mooted by the Rubber Association, for almost exactly a year previously it is known that representatives of the Association consulted with the Solicitor to the Department of Commerce on the subject, though there was no practical outcome at the time. Even now, in March 1924, Mr. Hoover's action was premature; a bill for the necessary extension and amendment of the Webb-Pomerene Act was introduced into the Senate, but it was not supported by the manufacturing interests with any solidity or vigour, and eventually passed into oblivion. The only practical outcome was to provoke the R.G.A. to circularise its members on the question of the establishment of a single selling combine, in view of the advantage which a limited number of buyers at present had over a multitude of sellers, and of Mr Hoover's letter. This idea had often been mooted before in periods of low prices, but this time it was probably explored more thoroughly than usual, though no report was made to the council, and as a tu quoque it certainly had no effect on the fate of the Capper Bill. As has been said already, the American manufacturers were not much interested in restriction during these two years. Mr. Hoover's warnings and activities were regarded either as the well-meant but misguided efforts of a theorist, or as due to the desire of a politician to exploit the anti-monopoly complex of the American electorate, thereby achieving wide-spread publicity and personal "boost."

In May 1924 the preliminary reports of the Crude Rubber Survey were presented to the Association, but in view of their not very optimistic nature, and of the fact that the price of rubber was barely 1s. and was still dropping daily, it is not surprising that these reports met with a somewhat lukewarm reception. Even Mr. Hoover appears to have been wondering during the next few months whether he had not been making a molehill into a mountain, for the activities of the Department of Commerce in connection with rubber appear to have slackened greatly. But the turning point was in fact at hand. In the August-October quarter 1924 the British official average price reached 1s. 2.6d., and in the November-January quarter all but is. 6d. In the February-April quarter 1925 the rise continued though at a lesser rate, but with May the boom was fairly

turers were thoroughly alarmed.

The scene now shifts back to the commercial world, and the Rubber Association of America again takes the centre of the stage. Between June 4 and June 8, 1925, the following cables were exchanged between the Rubber Association and Mr. Eric Miller, who had been one of the R.G.A. delegates visiting the U.S. in 1923, had just retired from the chairmanship of the R.G.A., and was a member of the Colonial Office Advisory Committee. These cables were produced to the Committee on Foreign and Domestic Commerce, and were published in its report, but it seems advisable to repeat them here in full. On June 4 the Rubber Association cabled to Mr. Miller asking him

started, and by June the American manufac-

^{*} The estimates in these articles are somewhat amusing in the light of the present day: world consumption in 1928 is estimated at 505,000 tons and production at 425,000 tons; the figures actually proved to be respectively 680,000 tons, and 650,000 tons with some British Restriction. But the idea of a shortage in the more distant future was not confined to American opinion, and by 1925–26 many British producers were convinced: see p. 41.

[&]quot;to convey to the authorities in charge of restriction our earnest request that they use discretionary power which we have been assured is vested in the administrators of the restriction act to relieve dangerous emergency at present time, which has also created a lack of confidence extremely harmful to the future, and we suggest increase immediate release crude rubber regardless quarterly periods until market stabilised. We refer to assurances Lord Stevenson to

Work * and Hotchkiss * that action would be taken by authorities in case of emergency."

Mr. Miller replied:

"Still think releases provided under the scheme will furnish adequate supplies of rubber, but if you have any specific evidence showing that ten per cent. releases in August and November will be insufficient, please cable in detail."

The manager of the Rubber Association then cabled:

"Referring to last exchange cables U.S. consumption first four months 1925 approximately 134,000 tons. Careful and conservative estimate balance of year average 30,000 tons per month. Our firm belief 10 per cent. release August and November will not meet this need particularly if world consumption taken into consideration. Failure of restriction authorities to release rubber more frequently and in greater quantities than provided by a quarterly period to meet present emergency strengthens rapidly growing belief that administrators of restriction have not kept faith with American manufacturers. We again refer to assurances by Lord Stevenson and yourself to members of our Association that you could and would control additional releases of rubber in case of a shortage or price crisis which now exists. We now call on you to make good these assurances in order that we may advise our directors at a meeting which will be called immediately upon receipt of your cable reply.'

Mr. Miller's reply was as follows:

"From tone of your cable it would appear that your members do not realise their own share of responsibility for present situation which would never have arisen if they had shown reasonable foresight and pursued sound buying policy during past 12 months instead of hand to mouth. Working on your figures assuming usual seasonal slowing down July-August and 10 per cent. release August and November, I calculate lowest crude stocks will be passed this month. Am struck by absence of American orders for 1926 even at enormous discount. What is the explanation?"

So far as I have been able to discover there is no further documentary evidence as to the British side of this affair. The cable correspondence ceased with Mr. Miller's reply as above, and neither he nor Lord Stevenson ever directly referred to the matter in public. Some relevance may perhaps be attributed to a question in the House of Commons on March 19, 1923, in answer to which the Under Secretary for the Colonies stated that "no modification of the scheme (the Stevenson Scheme) is under contemplation." But against this has to be set a short passage in a speech made by Lord Stevenson about one month later, at the annual "Certain critics dinner of the R.G.A. in 1923.

of our scheme both in America and at home have contended that as it is laid out, it is not sufficiently elastic to deal with a situation that may arise if our calculations as to the amount of rubber required are wrong. I just want to say that it won't be necessary to repeal the legislation in order to deal with that situation, should it occur." This seems to undermine the practical value of the official denial by suggesting that the Colonial Office was prepared to alter the exportable percentage if the scheme, as laid out, proved insufficiently elastic. Since it cannot be supposed that the American story is simply an ingenious invention, it may be concluded that assurances of some sort were among them that "discretionary power" was "vested in the administrators of the restriction act," and would be used if necessary. Equally it cannot be supposed that Lord Stevenson or Mr. Miller so deliberately broke faith with the Americans as they allege. The only alternative, and the only reasonable conclusion, is that there was some misunderstanding between the two parties as to the exact circumstances in which the discretionary power would be used. On this assumption, also, the absence of any explanation by the British side becomes intelligible, for whatever Lord Stevenson or Mr. Miller might have said in their own defence would have failed to carry conviction in the minds of the Americans, as is unfortunately always the case with verbal misunderstandings when the interests of one party have been adversely affected and their ideas correspondingly fixed. Nevertheless, from the historian's point of view, it is to be wished that a clear statement of the British side were available.

In its absence, the nature of the misunderstanding is a matter of more or less educated guess-work. It must be realised that the determination of the initial exportable percentage at which the whole scheme would start work, was a factor as important as it was difficult. No one could be certain how far and how quickly the revival of the American demand would go during 1923; reports indicated that in the autumn of 1922 the pace was already considerable, and if the initial exportable percentage was fixed too low, there was the risk of a shortage developing during 1923, since the percentage could not be increased until the average price during a quarter had reached is, 3d, and then only by 5 points unless the price averaged over is. 6d. when the increase would be in points; thus even with a price level continuously over rs. 6d., it would be a year before full production could be obtained. On the other hand, if the initial percentage was fixed too high, and the

^{*} Mr. B. G. Work, President of the Goodrich Company; Mr. H. S. Hotchkiss, Vice-President of the U.S. Rubber Company. The latter was chairman and Mr. Work a member of the Rubber Association's special committee which conferred with the R.G.A., delegation in 1923.

American demand failed to reach expectations, the price might fall to a very low level before the restriction of supplies became adequate, and the whole scheme brought in jeopardy from the producers' point of view. The determination of 60 as the initial percentage was necessarily somewhat of a leap in the dark, and it would be only a matter of wisdom for Lord Stevenson to obtain an understanding with the Colonial Secretary that he would be prepared to change it if, when the scheme began to work, that seemed advisable. In other words, the discretionary power would apply until the scheme was seen to be working satisfactorily on the initial percentage chosen. It must be remembered that in the first restriction quarter the price shot up rapidly and averaged over 1s. 2d., while in the second quarter (February–April 1923) it averaged nearly 1s. 5d. The American manufacturers had been surprised themselves at the extent of the increase in actual absorption, and had done their best to impress this on the R.G.A. delegation. bably at the time of the delegation's visit, the American view of the danger of elasticity was mainly confined to the immediate future and not to a possibility in the remote future; the inelasticity seemed to be manifesting itself every day with a fresh rise in price. Assurances were therefore given, but confidentially because any open promise would have nullified the automatic mechanical basis of the whole scheme. When Lord Stevenson made the statement in April 1923, which has been quoted above, he was probably thinking, and with some justification, that the price might start soaring any day, showing that the initial percentage had been fixed too low, and would have to be altered; actually the price rise had just spent itself, and the long decline was beginning. Neither in this statement nor in any correspondence with the Americans, did he presumably intend to imply that if ever and for any reason the price did soar, whether in 1923 or at any future time, discretionary action would be taken.

Assuming this explanation of Lord Stevenson's meaning, the next question is whether the Americans misunderstood the limited nature of his assurance, and genuinely believed that if ever prices got out of hand, additional releases would be promptly sanctioned, or whether they understood perfectly well its limited nature, but deliberately converted it into a useful weapon of retaliation in 1925. The answer to this question seems to depend mainly on the supposed attitude of the Americans during 1923–24. Those who believe that in allowing stocks to dwindle almost to vanishing point and

the price to fall lower and lower, the Americans were deliberately trying to wreck the restriction scheme, will have a fairly solid foundation for the further belief that they deliberately mistorted Lord Stevenson's assurance when these plans recoiled upon their own heads in 1925. Those who, with the present writer, believe that the Americans made no deliberate attempt to wreck the scheme in 1924, will take the view that the Americans genuinely misunderstood the limited nature of Lord Stevenson's assurance, and will include this in their explanation of the American attitude in 1924. It is a common-place how easily such verbal misunderstandings may come about even under far easier and simpler conditions than probably attended the present example, and the historian may well feel some confidence in this suggested explanation of the whole matter, because it does fit in with the essential facts and features of the situation, while the only alternative involves the imputation of dishonesty to one or other party.

After the cables exchanged with Mr. Miller, the Rubber Association therefore turned to their own Government requesting that political representations be made in view of the damage to the American consumer. The U.S. Ambassador in London was instructed to make representations to the Colonial Office, and conversations were continued for some months. No official information about these conversations has been published; the historian at present must again fall back on surmise and educated guesswork. Judging by the general tone of Mr. Hoover's public utterances,* the U.S. Government would seem to have been determined to avoid any magnification of the trouble to the dimensions of a major political issue. He never gave much encouragement to the rubber manufacturers to rely on the championship of their interests by the U.S. Government; on the contrary he repeatedly told them that the real remedy was the harder and less palatable path of self-help, eased perhaps where possible by Government assistance but no more. It may be regarded as virtually certain that the representations made to the Colonial Office were not at all of the nature of ultimatums, even of the

^{*} See, for example, Mr. Hoover's address to the Erie Chamber of Commerce on "Foreign Combinations to fix prices of Imported Raw Materials," which received widespread publicity. The general tone is studiously moderate and polite, even in respect of rubber restriction. The address is a reasoned case against "controls" on the ground that they are uneconomic because no monopoly can resist the natural greed of human beings, and against Government controls in particular because of the inevitable effects on international relations. Various methods of resistance and of reprisals on the part of consuming nations are reviewed, but not advocated because they all involve the atmosphere of a trade war; the right solution is for the Governments of the world to recognise the consequences of Government control of production and price, and to abandon all such Government action.

most diplomatic variety. The rumour, which found credence in certain quarters in England, that the U.S. Government were threatening retaliation by an export tax or some measure of monopolistic control over American exports of cotton, appears to have no serious foundation whatever. The American Ambassador almost certainly made representations only, probably along the lines that full production should be allowed forthwith, and the whole scheme abolished as soon as possible, that all Government controls were to be condemned primarily on the ground that they were conducive to international friction and ill-feeling, as was abundantly clear in the present instance, and that Great Britain, as a large consumer of imported raw materials, should see, just as well as the U.S.A., that she had more to lose than to gain if such controls became widespread, and should therefore join with the U.S.A. in a campaign to re-establish free trade in raw materials. If British popular opinion on this kind of issue was at all reflected in the British Government's reply to these propositions, it may perhaps be surmised that that reply was in the nature of a tu quoque to the U.S. in respect of free trade in manufactured goods, and there matters would have ended in a deadlock. Certainly these conversations did end in a deadlock, and were entirely barren of results, unless, indeed, the grant of the additional 5 per cent. release as from February 1, 1926, to bring the percentage exportable up to 100 per cent., be accounted a result. It must, however, be repeated that the actual substance of these negotiations is not known, and will not be known until sufficient time has passed for the respective governments to allow access to their archives.

That these political negotiations were protracted may be judged by the fact that it was not until the beginning of December 1925 that Mr. Hoover began to supplement words by actions. On December 10 he wrote a long public letter, addressed to Senator Capper, outlining the necessity for further legislation to give protection against foreign monopolies, with special reference to the British rubber restriction scheme. "What can we do," he asks, "to defend ourselves against the trade war being made upon us? The measures that we can take of course vary with each combination. I do not wish to favour trade reprisals. Some of the following measures would ultimately afford relief if we had them organised and all are wholly defensive in nature:

 Our bankers can be discouraged from giving American credits to the support of these combinations.

- 2. We should initiate a strong systematic campaign for voluntary saving in the use of every one of the commodities where these combinations become extortionate.
- 3. We should stimulate the manufacture and use of substitutes.
- 4. We should stimulate production in countries where the commodities in question are not likely to be subject to such combinations.
- 5. We might set up some sort of properly controlled machinery for emergencies, which would prevent our many hundred buyers from bidding against each other."

The course of events in the United States during the remainder of the restriction period may be said largely to consist of the attempted translation of this programme into practice. It seems, therefore, more convenient at this point to abandon the chronological method which has hitherto been pursued, and to deal seriatim with these suggestions and their outcome. The general case for greater protection led almost immediately to a resolution in the House of Representatives, directing the Committee on Interstate and Foreign Commerce to investigate the control of the shipments of crude rubber and other imported raw materials, to report its findings and to make recommendations. The Committee got to work at once, and after taking a large volume of evidence from the Department of Commerce, rubber manufacturers, automobile manufacturers, etc., issued preliminary majority and minority reports in April 1926, stating that it would make a further report later "if the occasion should require it ": * this has apparently not yet been the case. As regards rubber, the Committee took the line that in so far as the present and the immediate future was concerned, the conservation campaign had proved a highly successful weapon, which was rapidly bringing the crisis to an end; their ultimate solution was to grow rubber under the American flag or within its shadow, e.g. in Central and South America. While this report is a most important document for the student of artificial control schemes in general, its importance from the point of view of the present study, is inconsiderable.

^{*} The minority opposition came from members of the Democratic party who argued that as long as the U.S. itself pursued a highly protective tariff policy, no complaint could legitimately be made against Government controls, such as the British rubber restriction, which were in effect similar to protective tariffs. In the debate on the report in the House of Representatives, the Democrats, of course, took the same line. Several members of this committee seem to have been impressed with the large profits made by the tyre manufacturers during 1925.

The outcome of Mr. Hoover's specific suggestions will now be reviewed with the exception of the first in the list, for the issue of the proposed restraint on foreign loans did not, of course, arise in the case of rubber.*

(1) Conservation in Use.

On December 21, 1925, Mr. Hoover summoned a conference of representatives of the Rubber Association and of the National Automobile Chamber of Commerce, to consider the conservation of crude rubber. At this conference the manufacturers decided to initiate an advertising campaign, showing the fault of the British for the unreasonably high price of crude rubber and therefore of tyres, and asking motorists to use and repair tyres so as to prolong their life to the utmost possible extent, and thereby reduce the consumption of crude rubber. This campaign was publicly blessed by the Secretary of Commerce. He was, in fact, very largely responsible for its initiation, though not for its conduct. He was, it is true, ardently supported by Mr. Firestone and a number of "radicals," but the vast majority of the rubber manufacturers would never have made such a move on their own initiative. The actual price of rubber was not their primary concern: what really bothered them were the fluctuations of the price, and the consequent fluctuations in the cost of each manufacturer's rubber as compared with that of his competitors, and conservation would do nothing to stop fluctuations. But for appearances' sake, and in order not to offend Mr. Hoover or public opinion, they had to give their nominal support.

It is not easy to judge the real effect of this conservation campaign. It is true that the U.S. absorption of crude rubber declined by 25,000 tons in 1926, whereas 1924 and 1925 had seen increases of 30,000 and 55,000 tons respectively. If we include reclaimed rubber on the basis of 2 of reclaimed to I of crude, the decline in total consumption in 1926 is only 12,000 tons as compared with 1925: on the other hand though 1924 shows no additional increase, the increase in 1925 becomes 85,000 tons. The real issue, therefore, is whether, if there had been no such conservation campaign, the total consumption of rubber (crude and reclaimed) might have been expected to show an increase in 1926, and since there can be little question that all the reclaimed rubber which could be produced was used, any

increase in this total may be taken as involving an increase in crude absorption by that amount. The great difficulty is to separate the, so to speak, natural effect of the high prices of tyres, etc., in reducing demand, from the artificial effects of the conservation campaign. The high prices might normally be expected to have a considerable effect, but it must be remembered that the U.S. was in an extremely prosperous condition in 1926; the effects would certainly have been much greater if the high prices had coincided with a general trade depression or even a stationary purchasing power. It seems probable, therefore, that the high prices alone would not have so completely checked the normal advance. The total increase of 85,000 tons in 1925 must, of course, be regarded as abnormally large, even allowing for the introduction of the balloon tyre with its greater rubber content than the high-pressure tyre; there is, indeed, some evidence that in 1925 motorists bought forward ahead of their actual replacement requirements in anticipation of a further rise in tyre prices.* But in making the large future delivery contracts, which they did make during 1925, it seems fairly clear that the manufacturers expected a further increase of consumption in 1926, even if they anticipated some shortage of supplies; and they were certainly left with stocks much exceeding a level of mere convenience by the end During 1926 the number of that year. of cars registered in the U.S. was 10 per cent. greater than in 1925, and there was a record production of new cars, while the consumption of gasoline increased 15 per cent. It seems certain that, but for the effect of high tyre prices and of the conservation campaign, the total absorption of rubber in 1926 would have been at least 30,000 tons greater, and probably 50,000 tons greater, and since prosperity must certainly have weakened the natural effect of the high prices, and since the manufacturers evidently thought the demand was extremely inelastic, it would seem that the conservation campaign must be credited with a substantial part of the economy effected. While it is impossible to measure its effect with any accuracy, Mr. Hoover's policy does at least provide some evidence that the consumer is not wholly defenceless in such a situation, even if his weapon must become blunted in a comparatively short time.

Brief mention must be made of the other side of this advertising campaign, namely, that the necessity for conservation and the increase

^{*} Such action had, however, already been taken in respect of loans to the Brazilian Coffee Defence Institute, and to the Franco-German potash combine, with the result that all assistance towards the flotation of these loans was refused in New York. This is not to say that no individual American investors bought these stocks after their flotation in London.

^{*} The general trend of replacement demand has been downwards since 1920, but there appears to have been a sharp rise in 1925. See Mr. E. G. Holt in the *India Rubber World*, November 1930.

in the price of rubber goods was due to the action of the British Government and the British rubber producers. It is most difficult to determine the degree or quality of the anti-British feeling which was aroused. If one were to judge by the American Press, one's impression would be that every American was aroused to white-hot indignation and that a declaration of war upon Great Britain might be expected at any moment. But it must be remembered that the average American motorist is used to a sensational Press, and his reactions are therefore much smaller than an Englishman's would be if English newspapers suddenly appeared with the type of article and the headlines which the American Press used in connection with the rubber problem. If popular feeling had been really seriously aroused, it would have been reflected in Congress, whatever Mr. Hoover might have done to prevent it in accordance with his declared determination that the matter should not become a major political issue. What his feelings were at this time, no one knows except himself. After the refusal of any alleviation by the British Government, he could hardly be blamed if he had definitely reversed his 1925 policy; there can be little doubt that he could have fanned the flames much more vigorously. On the other hand, it is possible to suppose that he became somewhat appalled at the extent of the conflagration which he had helped to stir up; but he certainly took no steps to damp it down. Neither of these extremes, therefore, seems a tenable hypothesis. Probably he felt that it would not do the British Government any harm to learn the truth of his contention that all Government controls of raw materials stir up international ill-feeling and should therefore be condemned; and he therefore decided to stand aside as long as things did not get out of hand. whatever Mr. Hoover's part or attitude in the matter, there is no doubt that a good deal of popular resentment against Great Britain was aroused, even if it did not amount to a serious anti-British attitude, and if the general relations between the two countries had not been fundamentally sound, the situation might well have become definitely dangerous. It should, however, be remarked that artificial control schemes are not open to objection on Mr. Hoover's grounds unless and until they degenerate into attempts at monopolistic exploitation; if, as he contends, such degeneration is inevitable, his argument is sound, but the contention rests only on the fallibility of human nature, and there is no inevitability on economic grounds. It may at least be objected that even if human nature cannot change its instinctive greediness,

men can learn that greediness of this kind does not pay—a lesson, it may be remarked, which many American and other trusts have more or less successfully imbibed during the last thirty years.

(2) RECLAIMED RUBBER AS A SUBSTITUTE.

It is often thought that reclaimed rubber was a new invention, brought about and developed by the rubber boom of 1925. This is very far from the truth. In 1917 nearly 90,000 tons of reclaimed rubber were used in the U.S., giving a ratio of nearly 57 per cent. to crude consumption, a figure which has never yet been repeated. The price of crude rubber was then averaging about 2s. 10d., and had never vet been below 2s. This extensive use of reclaimed was, of course, partly due to war conditions and war requirements, and the results were far from satisfactory. In 1919 and 1920, when crude prices averaged about 2s., the ratio of reclaimed absorption to crude absorption fell to about 33 per cent., and when in 1921 and 1922 the price of crude dropped to a ninepenny level, the ratio fell to 19 per cent.* It is, indeed, remarkable that the production of reclaimed could be adjusted so rapidly to such an entirely different price-level; it would not have been surprising if the reclaimed industry had virtually disappeared altogether. This suggests that even at this date inquiries would have elicited the fact that for certain purposes manufacturers had already found positive advantages in the use of reclaimed as compared with crude. In the years 1923 and 1924 the ratio was practically steady at 23 per cent., but with the increase in consumption, this meant an increasing production of reclaimed, which in 1924 amounted to 76,000 tons. Then came the boom in the price of crude, and in 1925 the absorption of reclaimed reached 137,000 tons, a ratio of 35 per cent. It seems probable that there must have been a reserve of plant for the production of reclaimed, since otherwise such an increase in a single year seems impossible, and the history of the previous years lends support to this supposition. The crude rubber producing industry would probably not have been taken so completely by surprise if it had condescended to study the doings of its chief customers. In 1926 crude rubber averaged nearly 2s. as compared with nearly 3s. in 1925, and the absorption of reclaimed mounted to 164,500 tons, a ratio of 45 per cent. to crude absorption. In 1927 the corresponding figures were 190,000

^{*} It is possible that the statistics of reclaimed are not accurate during these earlier years, but there is no direct evidence to that effect, and the error could not be significantly large.

tons, and a ratio of 50.5 per cent., though the average price was down to 1s. 6d. Gradually Mincing Lane realised that under restriction, reclaimed rubber had come to stay, but its use was still expected to decline if prices went below 1s. In 1928 this condition was satisfied, but the ratio of reclaimed to crude remained the same, and even with crude rubber averaging under 6d. in 1930 the ratio was over 42 per cent.

The commercial history of reclaimed rubber. therefore, points to a very important general conclusion, namely, that before the producers of a raw material embark upon any scheme of output or price control, it is as necessary to know all there is to be known about the consumption of that material, as it is to investigate the potentialities of production outside the jurisdiction of their scheme, and that while the scheme is in operation, the most constant study and vigilance is required in both cases. This, in fact, should be one of the cardinal rules in the technique of operating all artificial controls. The R.G.A. may be said to have completely disregarded both the consumer and the unrestricted producer, and if in this first attempt at control there is considerable excuse on the score of inexperience, that excuse will not be valid in future either for themselves or for those who attempt similar schemes. The previous history of reclaimed, however, suggests that whatever the price, its use would have gradually extended. But this is only to say that in 1927 or 1928 the absorption of reclaimed would have amounted to perhaps one-half of the actual absorption, or roughly 100,000 instead of 200,000 tons per annum. Subject to modification on this score, it is clear that if the use of reclaimedhad not been stimulated by high crude prices, the U.S. would have probably required at least 150,000 tons * more crude rubber during the four years 1925-As compared with the other great enemy of restriction, production by the N.E.I. and other foreign countries, reclaimed rubber was immensely more powerful and, so to speak, destructive of the actual scheme; reclaimed dealt its blows swiftly, whereas new planting in the N.E.I. could not make itself felt for a period of years. It is true, however, that by 1927 reclaimed had, so to speak, spent its reserves, and could not advance further, whereas the new planting might have dealt a more serious and deadly blow to the British industry, and, indeed, to the whole plantation industry in the long While, however, it may be said that much of the potentialities of reclaimed rubber might have been foreseen, it is still true that up to 1925 reclaimed would have been visualised in the main as a competitive substitute for

* On the basis of 2 of reclaimed to 1 of crude.

crude, and its use akin to an adulteration at any rate for most purposes. Up to that time, reclaimed, while favoured by the manufacturers of rubber goods for certain lines, had yet to win its claim to be a perfectly legitimate compounding ingredient for tyre manufacture, and therefore it was reasonable to conclude that a greatly extended use would only accompany high prices for crude, and would contract again as crude prices declined. But every year there was a great improvement in the quality of reclaimed, and in 1925 the tyre manufacturers were driven to use it, and the raising of the pivotal price and the resulting maintenance of relative high prices for crude, induced them to continue using it, and to learn its merits as well as its limita-The latter is simply a question of the proportions which can be satisfactorily used from the consumer's point of view. Its merits arise from the fact that it is no easy matter to compound dry powders, like carbon black, etc., into raw rubber; it takes much time and much machinery, while there is some damage to the properties of the raw rubber as the results of the necessary masceration. Reclaimed rubber makes this task much easier, because it is already amalgamated with filling materials; broadly speaking, every pound of reclaimed contains as much "fillers" as rubber gum. Thus its use simplifies and cheapens manufacture, and, as long as the proportion is restricted, the consumers' interests are equally well served. In the case of tyres and tubes, reclaimed must be limited to a maximum of about 30 per cent. if the wear of the tyre is to be satisfactory on modern standards. So far, the maximum ratio which has yet been used, taking the whole U.S. production of tyres and tubes, is approximately 20 per cent., so that there is still a potential field here for the further use of reclaimed without a greater sacrifice of the interests of consumers than would be warranted if crude prices were high.* Apart from this further limited potential use in tyre manufacture, there is little additional scope in the U.S., for in the manufacture of rubber products other than tyres and tubes, reclaimed is being used in the proportion of 2 to 1 of crude, and until some new important product appears in which a still larger proportion can be safely used, it is unlikely that this ratio will be much increased. Broadly speaking, therefore, it may

^{*} The figure of 30 per cent. is to some extent theoretical, and probably the limit was lower in 1926 because of the improvement which has been effected in reclaimed; hence the qualification. Some producers of crude rubber maintain that the limit was exceeded in 1925–26, and that the large demand for rubber in 1929 was due to the bad wear of tyres made in those years. It is possible, however, that the bad wear was due more to generally cheap methods of manufacture than to the use of reclaimed.

be said that the ratio of reclaimed to crude absorption in the U.S. is unlikely to exceed 55 per cent. whatever the price of crude, while a guess may be hazarded that so long as the price of crude remains above 4d., the ratio will not fall much below 40 per cent.,* for while I lb. of crude is equivalent to 2 lbs. of reclaimed, the cost of production of reclaimed is now believed to be under 3d. per lb., † and its advantages in manufacture weigh down the scales in its favour, even if the purchase price is somewhat greater. On the other hand, it should be pointed out that from the point of view of world requirements of crude rubber, reclaimed has probably by no means spent its force. The rest of the world has probably never yet used more than 30-50,000 tons of reclaimed in a year. If we suppose that in time European manufacturers and consumers of tyres will abandon what is littlemore than prejudice, and follow the example of their American brethren, as indeed they have begun to do, and if the European manufacturers of other rubber products increase their use of reclaimed, there is obviously a comparatively large potential field for reclaimed as a competitor with crude. It is often urged that in Europe, and particularly in Great Britain, there is no demand for anything short of the highest quality tyres, but in this argument there is implicit the old idea that any admixture of reclaimed, however small, is an adulteration and lowers the quality in wear, which is contrary to American experience, and in any case as the average income of the motorist in Europe declines, which it has been rapidly doing and will almost certainly continue to do, price becomes of greater importance than superfine quality. It seems fairly safe to predict that the next boom in crude rubber prices will greatly stimulate the use of reclaimed by European manufacturers, while the competition of American tyres is persistently urging them in that direction whatever the price of crude The crude rubber producer has not yet felt the full effects of reclaimed, but at least he now knows or ought to know what to expect.

(3) THE DEVELOPMENT OF RUBBER PRODUC-TION UNDER THE AMERICAN FLAG, OR IN COUNTRIES WHERE THE EXERCISE OF ANY ARTIFICIAL CONTROL IS UNLIKELY.

This was Mr. Hoover's long-period remedy, but little has yet been done towards such developments. At the end of 1925, it is true

able, the ratio might eventually fall lower.

† The declared value of reclaimed rubber exported from U.S.A. was 5.8 cents, per lb. in 1930.

‡ Statistics are lacking, and all estimates are largely guess-

that Mr. Firestone was making great plans in Liberia, and lesser plans in Mexico, but neither the U.S. Rubber Company, nor the Goodyear Company, the only two American companies already in the producing industry, embarked on any greatly increased planting programme at that time. In his evidence before the Committee on Interstate and Foreign Commerce. Mr. Hoover announced with great satisfaction * that the American Automobile Industry had organised a company with \$10 million initial capital, as a contribution to freeing the consumers of rubber from unreasonable rubber "I gather," he said, "from the discussions I have had with their members that they will devote their energies more to the stimulation of production than perhaps themselves entering production; that is, to assist others to get into the production of rubber, to stimulate the production of wild rubber as part of the immediate relief, to interest themselves in joining American and Dutch capital in the expansion of plantations in the Dutch Indies. and, of course, they will interest themselves in such developments as they may be able to do in the Philippines." I have been unable to trace the history of this venture, but nothing appears to have been done. Perhaps the company failed to find any one who required assistance, and in due course was disbanded as superfluous. venture made by an automobile manufacturer direct, was by Mr. Ford in the Amazon basin, and so far as is known he was pursuing his own independent way in that matter.

It is, indeed, somewhat curious that the American manufacturers have had so little part in the development of the rubber producing industry, and much more curious that even in recent years it has apparently made no appeal to them, although the advantages of such integration in the mere matter of costs of production, e.g. in packing, marketing, etc., quite apart from the manufacturing point of view, have now been demonstrated, both by a large English manufacturer and by the one American manufacturing firm which has undertaken the production of rubber on an appreciable scale, namely, the U.S. Rubber Company through its subsidiary the General Rubber Company. This company's aim, as stated to the Committee on Interstate and Foreign Commerce, is to produce 50 per cent. of its requirements,† and so safeguard its posi-

† In 1925 it produced 20 per cent. of its crude rubber requirements.

^{*} Much would depend on the length of time for which the crude rubber price remained at a low level—if it were consider-

^{*} This announcement ended with the remark, "I felt your Committee would be glad to know of these successful developments, as it relieves the Government from some anxiety and from the necessity of considering action in that particular direction."

tion whether the market is favourable to the producer and against the manufacturer, or vice versa. Asked by the Committee why other companies were not following his example, Mr. Seger, the President of the U.S. Rubber Company, replied, "It is a question of money. With all due respect to our American capitalists, I think it is not out of place to say that they are not in the habit of putting up capital for a long pull such as is involved in the cultivation of rubber. We in this country have become accustomed to a rather quick turnover of our money, so if we are to raise sufficient capital . . ., we have got to raise it as an assessment against the industry, or we have got to have some kind of tax, import or what not, that will create a fund which can be used under proper regulation to develop plantations in areas where we are reasonably assured that we will not have a repetition of the present situation." With this may be compared Mr. Sieberling's remarks on the same subject: "We Americans are inclined to make money quickly overnight; we like to watch the ticker, and the planting of rubber is a matter of ten years, throwing your money on the table and waiting ten years for your return. American capital is not used to doing that. British capital is trained to it for years, going into foreign countries and taking chances. We do not do it in this country."

Before the war, the U.S. required all its available supply of capital at home, and investors were not tempted to take greater risks abroad so long as the return on home investments was so satisfactory. By 1925, this position had, of course, altered, but the above quotations suggest why rubber production as a line of investment fails to appeal. The manufacturers realised that it would probably be impossible to borrow from the public for the purpose, and their own reserves could be most profitably employed in expanding their factories. Mr. Seger mentioned that, "a group of rubber manufacturers discussed some months ago the possibility of making an arbitrary, or rather a voluntary, assessment against their companies, which would be put into a pot and used for the purpose of forming a national company to develop rubber in countries under the American flag, or where we can get some assurance that we shall not be subjected to such a condition as we have to-day. It has been talked of but nothing ever came of it." Mr. Sieberling advocated such a scheme to the Committee. Thus, both the rubber and the automobile manufacturers were thinking along the same lines, and it seems clear that any action which might have been taken would have been of a

co-operative rather than of an individual nature. If the planting could have taken place under the American flag, it is possible that something might have developed. The Crude Rubber Survey of the Department of Commerce had shown that the Philippines were by far the most promising territory from the point of view of climate, etc., but the land laws were a difficulty, and also there was doubt whether an adequate supply of labour could be mobilised, while the virtual certainty of Philippine independence in the not too distant future was a prospect which made planting in Dutch or even British territory appear relatively more desirable in the long run. Thus there were many difficulties to be faced in developing this longterm remedy, and nothing was done during 1926. By 1927 information as to the extent of the new native plantings in the N.E.I. was beginning to filter through, and in July of that year Dr. Whitford was sent out on his first investigation. With his report, the rubber manufacturers gave up all ideas of new planting; before they could bring any plantations into bearing, the output of these native plantings would be available to check any considerable rise in price, and they concluded, more or less correctly, that they could with safety rely on this safety-valve for many years to come. It may be that in, say, five or seven years from to-day they will again feel the need for sources of production more immediately under their control, but the factor of the American temperament is not to be over-The U.S. Rubber Company,* the Goodyear Company,* and the Firestone Company may still be outstanding exceptions even in 1950.

(4) ORGANISED BUYING.

When the price boom collapsed at the beginning of 1926, the American rubber manufacturers rapidly realised that their stocks and forward delivery contracts might prove a most difficult incubus, if not a source of disastrous

^{*} These two companies have extended their planted areas considerably since 1925, but this was in accordance with a long period settled policy, and has not been due to restriction. It should also be noted that the U.S. Rubber Company has achieved a great deal towards the development of bud-grafted rubber and of high-yielding strains, as well as providing an outstanding example of the possibilities of a scientific use of artificial manures, while the size of their main estate in Sumatra has shown some of the benefits, and at the same time the limitations, of very large unit organisation. The fact that they have been over ready to pass on the results of their experiments for the benefit of the producing industry at large, has led to remarks by British producers that the General Rubber Company is interested in rubber growing more from the consumer's than from the producer's point of view. This, however, is a somewhat double-edged criticism, and in no way detracts from their undoubted achievements in the growing of rubber on scientific large-scale lines.

It may well be true that these commitments would not have averaged more than 2s. 6d. a lb., if as much,* but with the prospect of a fairly rapid return to the pivotal price of is. 3d, the outlook was not reassuring. It is certain that one, † and it is probable that more, of the "Big Five" American manufacturers made urgent representations to the R.G.A. in favour of raising the pivotal price, but the Rubber Association itself made no such move, and it is doubtful whether these private efforts played any decisive part in the British Government's decision. It is nevertheless true that most of the American manufacturers were pleased rather than the reverse when the pivotal price was raised in April to 1s. 9d.; it would set a limit to their potential losses, or at the least would provide further time for liquidation. Naturally, however, they prudently disguised such feelings, and joined in the general expression of opinion that now at last the British restriction scheme had unmistakably shown its true colours as an extortionate monopoly.

As the months passed by, however, their fears began to revive. In the May-July quarter 1926, the new pivotal price was only exceeded by 0.0017 of a penny, and in the following quarter the average barely exceeded The American manufacturers then formed the opinion that even the reintroduction of active restriction might not suffice to maintain the price. The smaller manufacturers, who had not bought so heavily or so far ahead, were in a relatively happy position; it was the large firms who still had heavy inventories, and Mr. Hoover's conservation campaign had only made matters worse from their point of view. In October 1926 plans began to be discussed, and in December the Rubber Buying Pool was

As will be seen from its later history, there must always have been considerable doubt as to the legality of this organisation under the Anti-Trust laws, and therefore it is not surprising that little or no direct documentary evidence is available, at any rate as yet, for the historian. Such evidence as is available comes mainly from hearings and debates on the Newton-Jones Bill to amend the Webb-Pomerene Act so as to allow combinations in import as well as export trade; this Bill will be considered in due course. From these sources, from some fragmentary newspaper reports, and by inferences drawn from the

* See Mr. E. Miller's contribution to the three-cornered debate published by the American Section of the International Chamber of Commerce in May 1926.

of Commerce in May 1926.

† The Secretary of the Colonies mentioned one American company in his speech during the debate on the termination of restriction.

extremely reticent remarks of certain persons directly concerned, the following account has been built up, but it must be stressed that the accuracy of even this meagre information cannot be in any way guaranteed, and the historian of the future may be able to give a very different picture.

The membership included the "Big Five" rubber manufacturers (U.S. Rubber Co., Goodyear, Goodrich, Firestone, and Fisk) together with the Kelly-Springfield Tyre Company, the Ajax Rubber Co., and the General Motors, Studebaker, Willys-Overland, Dodge and Packhard automobile companies. According to Mr. Raskob, the President of General Motors Corporation, the initiative came from these automobile manufacturers, for in his evidence before a committee on the Newton-Jones Bill, he said, "We immediately got into touch with the Rubber Association of America and Mr. Firestone, as well as the Department of Justice and the Department of Commerce. . . . To make a long story short, we evolved a plan that resulted in the formation of a \$50 million buying pool, which dealt in rubber throughout the whole year 1927." This statement also suggests that Mr. Hoover and the Department of Justice gave informal assurances that the legality of the organisation would not be attacked by the Government itself. The finance was provided by credits from New York banks secured on rubber purchased, and presumably backed by the collective guarantee of the members, for there is no suggestion that the losses which were ultimately made fell upon the There seems to be little doubt that the pool bought more or less steadily throughout 1927, and that when the end of restriction was announced in April 1928, it was holding between 40 and 60,000 tons of rubber. But as to its operations on the selling side up to that time, virtually nothing is known. In its issue of June 17,1927, the Washington Post gave a short account of the pool, and stated that the specific purpose was to protect American manufacturers against excessive prices. The formation followed the announcement by the British Government of proposed further restriction of crude rubber exports." This passage is quoted and apparently accepted by Mr. Donaldson in his International Economic Relations. But in the first place, the British Government's action, to which reference is made, is presumably the official revision of October 1926, which merely confirmed and supplemented in detail the preliminary revision of the previous April, and contained no new departure of importance whatever. Secondly, the troubles of the rubber and automobile manufacturers were not caused by too little rubber at too high a price, but by too much rubber at too low a price, relatively to their inventories of crude rubber and of tyres and tubes. Finally, how could the pool expect to lower prices by buying? And even if the idea was to accumulate a reserve against the possibility of a repetition of 1925, it would have been madness to buy while manufacturers' stocks were still mounting rapidly, prices falling, and a growing evidence that restriction was doomed. My own impressions are that the objective of the pool was of a two-fold nature—to hold up the price so that the manufacturers could liquidate their surplus stocks, and at the same time to prevent any individual firm obtaining a competitive advantage in buying his raw material. In other words, the price was to be stabilised, probably at or near the new is. 9d. pivotal price of the restriction scheme; if the market price fell below this level, the pool would buy, while if any manufacturer found himself in the position of having to buy at a market price appreciably above this figure, he could turn to the pool; the pool would thus have a buying price and a selling price, separated by a small margin for costs of warehousing, etc., the costs of the actual finance required being met by a levy of some kind on the members as a whole, since all would reap the benefits of the stabilisation, and the prevention, or at least reduction, of any competitive advantage by those who could wait for the operation of the British restriction to reduce prices again over those who could not wait. The selling side of the scheme was probably never required to function, for despite the application of more and more restriction the market price could not be maintained anywhere near the pivotal level. The pool therefore bought to the limit of its resources, and in April 1928 was left with a vast holding of rubber, bought at something like double the price which ruled during the rest of that year. The pool was therefore working to the same end as the British restriction scheme, and there are grounds for concluding that the R.G.A. and the pool cooperated to some extent by the mutual exchange of information and ideas, while more may have been done by individual members. The general opinion amongst British producers is that the pool was a factor of little importance. This can only rest on the assumption that the American manufacturers concerned would have bought as much rubber individually as they did collectively. To some extent this must obviously be true, but it seems a large assumption in its entirety. American manufacturers are equally convinced that it had a very con-

siderable effect upon the course of prices, and it may therefore be concluded that the truth lies between the two views. Very possibly the actual moments at which the pool chose to buy were at least as important, from the manufacturers' point of view, as the additional amount it bought over that which would otherwise have been purchased.

It must be stated again that these ideas as to the pool's projected activities and methods of operation are largely the result of guesswork and deduction from the most scanty data, and the above account may well be wide of the mark. If, however, it is correct in outline, the student of conscious control must regard the pool as a most interesting experiment, and in the interests of scientific study, if for no other reason, it is to be hoped that the full story will

be made available as soon as may be.

Reference has been made above to the Newton-Jones Bill to legalise buying combinations in the import trade. The hearings and debates on this Bill leave little doubt that the initiative came from the pool, and particularly from General Motors Corporation. It would seem as if the pool became frightened towards the end of 1927 lest, despite the understanding arrived at with Mr. Hoover and the Department of Justice, some one would invoke the Sherman Act and force the Government to set the Federal Trade Commission to work. It was virtually admitted by some of the supporters of the Bill that one of its important results would be to legalise the rubber pool, which was defended on the ground that there is "no suggestion that our trade is in any way restrained or our commerce interfered with, and this buying power has unquestionably operated in the interests of the American user of rubber," and that therefore the part played by Mr. Hoover and the Department of Justice was in order. But the same speaker went on to argue that the Bill was necessary " for the purpose of removing all doubt," while other speakers maintained that there was sufficient uncertainty about the pool's legality to warrant Congress in placing its position beyond all doubt. The Bill was opposed chiefly on the ground that it would create a monopoly, and that that was the object of General Motors and the other manufacturers: alternatively, that it would allow them to raise the price of tyres, and so make good the loss which the pool had sustained. For this Bill was not debated in the House of Representatives until April 6, 1928, two days after the British Prime Minister had announced the termination of restriction with the result that the price had been cut in half, and the pool stood to lose \$15-20 million, according to the popular estimate. If the debate had taken place earlier, the whole situation would have been different, and the U.S. might have taken a step at least as important as the passage of the Webb-Pomerene Act. In fact, the bottom had been knocked out of the whole affair, and no one expected anything but the defeat of the Bill.

With its legality still in doubt, the pool had to face the liquidation of its stocks. There is no information on this point. The Associated Press reported on March 20 that a certain banking and trust company in New York had supplied the pool with a further credit to the amount of \$60 million, and the Editor of the Washington Post suggested that, while the pool had lost money on its present holdings, "it is probable that rubber purchased with the new loan will advance in price enough to offset the earlier losses." So far as can be ascertained,

there is no confirmation of any such desperate scheme, and it seems somewhat improbable. The pool without much doubt had to shoulder a heavy loss, but even so, from the rubber manufacturer member's point of view, all suffered alike, whereas otherwise some might have fared better than others. This applies only to the big manufacturers, since they alone were concerned in the pool: as a group, of course. they fared worse than the smaller concerns, whose inventories and commitments were not so great. All of them would naturally have preferred gradual rather than abrupt repeal, but on the whole their general reaction to the British Prime Minister's announcement was a feeling of thankfulness that, even though they might be ruined, such an incalculable factor and such a thorough nuisance as the British restriction scheme was at last eliminated from their business problems.

It was argued above that in the summer of 1922 the Dutch attitude to the proposed restriction scheme was little influenced by fears concerning the native rubber industry in the Outer Possessions of the N.E.I., because at that time no one, even in Java, was paying much attention to the potentialities of this source of supply. The statistics of native rubber exports, such as they were, suggested a very considerable decline in 1921 as compared with the two previous years, and though these export statistics were most incomplete and unreliable at this period. there seems little reason to suppose that the figure of 6,000 tons (dry-weight) for 1921 was subject to a significant degree of error. In 1922 there was a rapid recovery, and the total of 17,000 tons was a record. But it was not until this figure was doubled during 1923 that even the Dutch in Java began to wonder what had been happening in the little-known interior of Sumatra and Borneo, and to consider seriously whether the matter did not call for immediate investigation. Eventually, in February 1924, a meeting of Dutch planters was held at Djocdja, and certain British planters from Malaya also attended. As a result of the discussions, negotiations were opened with the Dutch Government,* and eventually it was arranged that Dr. Pekelharing, Chief of the Agricultural Department, should visit the Djambi Residency of Sumatra during July, August, and September 1924. During three weeks of this investigation, Dr. Pekelharing was accompanied by Mr. Cumming, an F.M.S. planter. Preliminary reports were presented to those who had attended the first meeting, and at a second meeting on October 9, 1924, the Native Rubber Investigation Committee was formally constituted, and it was decided to institute a direct inquiry, or "field investigation," by two qualified men who were to travel and observe for three months. Either before or after this meeting, considerable efforts were made to stimulate the interest of the N.E.I. Government, but without much success, at least in terms of financial assistance. The Government of British Malaya, or perhaps more accurately Sir George Maxwell, then Chief Secretary, displayed much more interest in the proposed investigation, and it appears that Mr. Kindersley, who with Mr. Cumming attended the second meeting, was empowered to promise considerable financial aid from the F.M.S. Government, provided that the N.E.I. Government would

make some contribution. Eventually finance was made available for a more extensive investigation than was at first contemplated, and if it is true that the bulk of the cost was borne by the Government of British Malaya, the subsequent indifference and apathy of British interests towards the results, seems all the more extraordinary.

As further evidence of the ignorance of the Dutch regarding native rubber until the latter part of the year 1923, it may be observed that Mr. Figart, the U.S. Department of Commerce investigator, concluded his field work in the Middle East in February 1924. In his extremely able report," The Plantation Rubber Industry in the Middle East," he concluded that the output of Dutch native rubber would tend to decline from a maximum of 36,000 tons in 1925 and 1926 to 29,000 tons in 1930. In other words, on this matter he was about as wrong as he could well have been, but there can be no doubt that he followed the general opinion at that time, for he was certainly not deliberately misled or misinformed, and the rest of his study testifies to his ability, experience, and thoroughness as an investigator. Had he visited Java a little later, his findings might have been very greatly modified.

Reference must also be made to another early investigation. Mr. H. A. Bluett, the British Commercial Secretary at Batavia, had become as interested as any of the Dutch planters, and when he heard that Dr. Pekelharing had gone to Djambi on a visit of investigation, he decided to follow him, though quite independently. The results of his investigations appeared in his D.O.T. report on the year ending July 1924 (published at the end of the year). "The planting of rubber trees by the inhabitants throughout the Outer Islands is of the greatest importance, and a native industry has come into being based on scientific knowledge. The number of trees planted yearly is amazing, and there can be no doubt that the native rubber industry of the N.E.I. is going to have an early influence on the world's rubber market. . . . It is an industry which has come to stay. A visit to Djambi, Palembang Residency, or South Borneo will show the sceptical Straits' rubber planter that there is no question of killing this industry by over-tapping, shortage of native labour or such other difficulties as are imagined by those who have not seen the districts in question." If in certain particulars Mr. Bluett's knowledge at that time was somewhat misleading, he was more right than wrong when he stated, and

^{*} The Dutch Government's interest in native rubber was largely in its aspect as a potential source of new revenue. See D.O.T. Report, 1924.

tacitly approved, the general proposition that "the rubber trade will follow in the lines of the copra trade, and yearly become more and more a native culture." *

During the spring and summer of 1925 the first reports of the Native Rubber Investigation Committee began to appear. In general, they showed that what Dr. Pekelharing had discovered in Djambi applied more or less throughout the other suitable districts of Sumatra, though with great variations, and also in Dutch The general features of the situation were clearly revealed, and were admirably summarised by Dr. Rutgers, Director of Agriculture in the N.E.I., in a lecture at Amsterdam His conclusion November 27, 1925. was most definite and most conservative, even in view of the evidence then available; the output of Dutch native rubber in 1930 would certainly be double that of 1925, unless the price went below is. per lb., and on his estimate of the 1925 output,† the 1930 output would therefore be not less than 150,000 tons.

Beyond the publication in January 1927 of the Final Report of the Dutch Committee with its summary of the whole position, no further substantial investigation or addition to the available information was forthcoming until the autumn of 1928 when Dr. Whitford's report on "Estate and Native Plantation Rubber in the Middle East "was circulated to the members of the Rubber Association of America. The report was a confidential document, as it was feared that its contents might stimulate the operations of bear speculators, and so militate against the stabilisation of price for which the "Pool," just as much as the Colonial Office and the R.G.A., were then working. Under due safeguards, a number of copies of the report were circulated in London, but even a year later the pledges given were being faithfully observed, as the present writer knows by experience. It must, however, be realised that no such secrecy attended the reports of the Dutch Native Rubber Investigation Committee. An article in the Bulletin of the Rubber Growers' Association as early as October 1924 repeated from the Malay Straits Budget Mr. Cumming's account of the three weeks which he had spent with Dr. Pekelharing in Djambi during the previous July and August. The June 1925 issue of the Bulletin contained quite adequate extracts from Dr. Pekelharing's report on the Djambi Residency, and attention was given to the other reports of the Committee as they appeared, while the reports were translated into English and published in Kuala Lumpur. Dr. Rutgers' lecture at Amsterdam in November 1925 was also published in English. while the official British commercial representative in Batavia had reported his general confirmation. It cannot be maintained that the leaders of the plantation industry both in Malaya and London, and also the British Colonial Office, did not have access to the facts almost as early as the Dutch themselves. By the end of 1925 the Dutch Government and the Dutch plantation industry were fully convinced, and appreciated the complete change in the whole outlook for the future which this new factor necessitated. They realised that, despite the current boom in price, then at its height, restriction must ultimately * fail, and in their relations with the British industry they shaped their policy accordingly. If the British industry and/or the Colonial Office had followed suit, it seems clear that the whole conduct of restriction would have been radically different from 1926 onwards; the folly of raising the pivotal price would have been realised by all, and steps would have been taken to end the scheme as soon as could be. It is because the British failure to appreciate the significance of the Dutch native rubber position was a matter of such importance in the history of restriction, that the successive stages of its revelation have been thus recited in detail, and a further brief discussion of the matter seems to be justified before a summary of the facts is attempted.

No one can doubt that the leaders of the British industry must have read and considered the facts and their bearing upon the policy of restriction. In extenuation of their suicidal agreement to the raising of the pivotal price, it can be urged that the stress laid upon the cessation of new planting in the period 1920-22, suggested that any increase in the output of Dutch native rubber in 1926 and 1927 over that of 1925 was most unlikely, since the boom prices might be supposed to have stimulated the maximum possible produc-The error in such an idea was due to the failure to grasp the time-lag between high prices and their effect on labour migration, which must necessarily be a matter of six months or so, and the failure to appreciate that such migrant labour will not immediately return even when prices have fallen considerably more will be said about this below. But with the warnings of the Dutch investigators and of Dr. Rutgers, it should have been evident that

^{*} This was indeed the outlook until the new turn of events in 1929, as will be explained more clearly in Section VI. below.
† The 1925 output is now put at 85,000 tons, but this includes a quantity of smuggled rubber from Malaya.

^{*} Since, however, there is little evidence that the Dutch estates sold forward more heavily than British estates during the boom, it may be surmised that the failure of restriction came more speedily than they anticipated.

a policy of maintaining the price at is. 9d. was, to say the least of it, playing with fire, while as regards the more distant future all the evidence pointed to the conclusion that such a price would maintain the maximum possible rate of new planting. In this respect the leaders of the British industry may have been misled by the belief, based on European estate experience, that much of the new planting would merely replace the old areas which would by then have been tapped to exhaustion; no one, even the Dutch investigators, fully realised at that date the vital difference between estate and native culture. But this is an excuse which becomes very weak as regards an indefinite continuation of new planting on a large scale, and it should have been clear that Dutch native rubber was a revolutionary factor in the more distant future, rather than in the immediate outlook for the next two years. From that more distant point of view, we are left with two alternatives, either that the leaders of the British industry simply disbelieved the whole evidence about the rate of planting, or that they believed but deliberately suppressed their belief for their own purposes, by which is meant no faintest suggestion of individual gain, but simply in order to further the interests of the British plantation industry as a whole in the best ways which they could conceive. These are virtually the only alternatives, and it should be realised quite clearly that the problem is not capable of definite solution; the historian can only form an opinion. As the result of discussions with a number of wellinformed persons in Java, Malaya, and London, my own impression is that a sharp distinction must be drawn between the attitude of representative men in Malaya and that of the real leaders of the industry in London. Malaya for the most part believed and was convinced, whereas London was not merely sceptical but almost contemptuous in its disbelief. "Stunts" and "hares" of all kinds are well-known in "the City," and the wise do not emulate the Athenians in respect of new things. In this case their scepticism may well have been reinforced by suspicion of anything of Dutch origin, while the participation of the Malayan Government and certain British planters may have been regarded as mere playing into the enemies' hands, and not as any guarantee of good faith and accuracy. It is, in fact, unthinkable that the leaders of the R.G.A. should have deliberately suppressed and disregarded the matter if they had believed, for the truth pointed only one way towards salvation, and therefore broadcasting and not suppression would have been their policy. Malaya probably did believe, but Malaya failed to convert London, and therefore,

for its own peace of mind, the best course was to push the spectre down as far as possible out of sight, since nothing could be done about it. Thus such suppression as there was in Malaya was no part of a deliberate policy, but simply the last resource of haunted minds. Similarly there seems little doubt that the Malayan Government believed, but it failed to convince the Colonial Office in the face of the utter disbelief of the City. It seems likely, however, that the Colonial Office did gradually come to believe, but not with sufficient assurance until probably well on in 1927. The realisation of the truth about Dutch native rubber may indeed have caused the definite breaking of the first strand of the rope which bound the Colonial Office to the industry for so long. So far as the R.G.A. was concerned, it needed another year or more, and Dr. Whitford's report, to convince them that the extent of Dutch native rubber planting was a subject worthy of investigation. At the end of 1928 Messrs. Tayler and Stephens were commissioned for the purpose, and after visiting the four chief centres of native production during March-June 1929, their report was presented in the following November. While an official disclaimer is for obvious reasons included in the Foreword, it can presumably be concluded that the R.G.A. was at last convinced, after an unnecessary and immeasurably expensive delay of four or five years.

An attempt must now be made to summarise the economic features of the Dutch native industry. No detailed study of particular districts will be undertaken, for which reference must be made to the various reports mentioned above, and since each district has its peculiarities, so much so that virtually no two are alike, it must be realised that any generalised description will fail to fit all the facts in any district. Nevertheless, while these district variations must not for one moment be forgotten, a broad survey has a very definite utility of its own, and will suffice for a general comprehension of the position of the native industry vis-à-vis the European plantation industry, both in the recent past and in at least the near future.

The initial stimulus to rubber planting by the natives of East Sumatra and Borneo came not from Java but from British Malaya. Singapore has long been the real economic centre of these countries, for the Chinese dealers there built up close contacts with their brethren across the Shallow Seas, while the entire traffic of Malays on the Mecca pilgrimage went via this port. Information about rubber planting was therefore disseminated through the Chinese

dealers and through returning pilgrims. During the boom of 1910, a few wealthy Malays started a little planting, but it was not until prices began to rise again at the end of 1915 that planting commenced on an appreciable scale, first in Borneo and the Djambi Residency of Sumatra, and later in Palembang, Sumatra East Coast and Riouw. The fall in prices in 1920 appears to have put a stop to further planting, and to some extent curtailed output. But towards the end of 1922 the plantings from 1916-19 began to come into bearing, and at the same time the rise in prices began to stimulate a resumption of planting. In 1923 and 1924 the amount of planting increased, but was still comparatively small. Then the boom in prices stimulated the maximum possible rate of planting, and this continued more or less throughout 1926. In 1927 the pace slackened and still more in 1928, though it was still considerable. Even in 1929 planting still continued, at any rate in Djambi, and there are some authorities who would dispute Messrs. Tayler and Stephens' limitation to that residency. It is, indeed, doubtful whether in all an appreciable amount of new planting is not still in progress even to-day, though every one admits that it is relatively insignificant as compared with 1925 or 1026.

Some of the earliest planting may have been specifically and solely for rubber, since it was undertaken by chiefs and comparatively wealthy persons who were directly copying what they had seen in Malaya. But from 1916 onwards, and even during the height of the planting boom in 1925 and 1926, the planting of rubber has been exclusively a quasi-byproduct of the planting of rice. Every year the native must clear about two acres of jungle in order to grow rice for himself and his family; he takes one, or sometimes two, rice crops from this clearing, and it then reverts to jungle for perhaps ten or fifteen years, and often very much longer, before it is cleared again.* As the gospel of rubber penetrated up the many rivers and along the very few high roads the Chinese storekeepers began to stock seed, and from 1923 onwards to press it on their customers, urging them to fill up their pockets gratis—just as at this date in England the customer is being enticed with all kinds of coupons and "gifts"! The native took the seed home, and obeying the shopkeeper's instructions, he planted it either with his rice or as soon as the rice had been harvested, by the simple method of pushing it an inch or so into the ground with

his thumb. As prices began to rise, a little more care was taken, but essentially native planting was, and still is, a more or less automatic process, costing the native little or no trouble or extra labour—he might, in fact, just as well push the seed in on the chance that some day the trees would be of value as not to do so.

This generalisation, however, requires one important addition. During the high price period of 1925–26, the natives thought it worth while to plant not only their annual clearings but also the clearings of the previous two or even three years wherever, and to the extent to which, the growth of scrub had not developed so fast as to make the necessary degree of re-clearing a difficult and lengthy operation. In most districts after a plot of land has been abandoned for more than two years, scrub and secondary jungle growth has got too firm a hold, but as a rule re-clearing is not too difficult or exacting a task within two years. Thus in 1925 and 1926 a large number of natives planted not merely their current clearings, i.e. two years clearings, but four or even five years clearings. Many people have scoffed at the estimates of the area planted in those years on the ground that the clearing of such areas of jungle would be a physical impossibility in districts so sparsely populated. But they have overlooked this so to speak reserve area of semi-cleared land, which the recently abandoned rice plots provided in 1925. From the point of view of the future also this point is of importance. So long as the native annually plants his riceclearing with rubber before he abandons it, the annual increase in the area planted with native rubber cannot suddenly increase. If, however, he ceases planting for two or three years, there will be the same reserve as in 1925, and a sudden huge increase in the planted area would be possible at any future time.

In all probability the general practice of planting far more trees per acre than is customary on European estates arose in the beginning from a natural inclination towards mathematical conclusions on the part of the native; the more trees per acre the more rubber, as any one but a white man would appreciate! The practice has, however, more than one very solid economic advantage. In the first place the dense stand of trees means an appreciable amount of shade within two or three years, and this helps to retard the growth of scrub, and so enables the rubber trees to rise above it when they might otherwise be choked. Later on the shade becomes extremely heavy, and this undoubtedly helps to keep the ground temperature lower than it would be on a European estate in the same situation. Probably also it

^{*} No land titles exist or are required; any unoccupied land, and there is no limit to the supply, may be had by getting the permission of the village headman.

means a greater humidity, while even the purely mathematical conclusion is correct up to a point; the average yield per tree is relatively low compared to that on a European estate, but the yield per acre is higher than most European estates can show, and probably would be even by European systems of tapping. The flaw in the mathematical conclusion concerns the bearing life of the trees, but since planting costs next to nothing, and the supply of land is still virtually unlimited, this is of minor importance to the native. Given these two fundamental conditions, it is clear that a policy of extensive cultivation is the correct policy for the native, and he has therefore a very solid basis for the dense planting of 300-500 trees per acre as compared with the usual standard of 80-100 *

trees on European estates.

Perhaps most commonly the planting takes place with the first rice crop, which is then followed by a second crop, so that the trees get a comparatively good start; after that, they must take their chance, for little or no upkeep is attempted, and usually when tapping commences the first operation is to cut a way among the trees with the local equivalent of a scythe. The extent of precautions against fire, and against the depredations of wild pigs, etc., vary in different districts, and also apparently with the current price of rubber, but in general it does not appear that an appreciable loss of acreage has occurred, except perhaps among the plantings of the last two or three years which may have received no attention at all. Once the trees are about four years old, the risk of loss is comparatively small. Tapping usually begins between the end of the fifth and the seventh years, peak production is from the eighth to the tenth year, but a high level of production has so far usually been maintained until the fifteenth year, and beyond that little data is yet available. These remarks require some further comment. The peak production is obtained from the virgin bark, but since the consumption of bark is heavy, that rarely lasts more than two to three years of continuous tapping. The first bark renewal is, however, good, and is generally sufficient within that period, for the atmospheric and general conditions in these native gardens undoubtedly conduce to a much more rapid rate of renewal than is customary on European estates, while the degree of sufficiency as reckoned by the native is much lower. Thus there is usually little falling off until the thirteenth year when the native starts tapping twice renewed bark,

and even then the yield may be maintained for a further short period by drastic methods of super-imposed cuts and similar practices which are anathema and a nightmare to the European Given such treatment it is almost certain that after the fifteenth year the yield would begin to fall off rapidly, though investigators can quote many apparently well-established cases to the contrary. But it must be realised that up to the present, and in all probability in the normal course of events in the future, comparatively few gardens have been or will be tapped absolutely continuously for even seven or eight years. The native owner does the planting and such upkeep as he thinks fit, but when prices are high the bulk of the tapping is done by hired labour and the owner desists from that operation, while when prices are low the hired labour cannot make a living, and though the owner has then to take his place he cannot as a rule tap all the trees which he owns, and this has become more universally true as each year passes. Thus when prices are low some of the trees get a rest, and these will be the trees which most want a rest, for the owner will probably tap only the highest yielding of his plots. Again in the intermediate stage of prices, when the hired labour is tapping but finds it difficult to make a living, only the highest yielding trees in a plot will be tapped and the remainder will get a rest, while as soon as the hired labour begins to drift away, and there is not sufficient labour available to tap the whole area even in this selective fashion, the lowest yielding plots will be completely rested. It is only on the supposition of high prices throughout the period that continuous tapping over a period of seven or eight years will normally take place, and there has so far been no such period, nor is it very likely to occur in the near future. In my opinion there has been a good deal of needless controversy and confusion on this subject of the "life" of native rubber. Those who consider that at say fifteen to twenty years of age the native rubber garden ceases to be a practical proposition even for the native, are probably correct on the assumption of continuous tapping, but they do not always make this assumption clear. Equally those who maintain that the life of a native rubber garden is likely to be as long, or nearly as long, as that of a well managed European estate, do not always make it clear that they assume intermittent tapping and comparatively frequent periods of rest, an assumption which has so far been, and is likely to be, a well-founded assumption in actual practice. It is the usual kind of confusion which so often arises between the theorist, or the pure scientist, and the practical

^{*} Planting is commonly at the rate of 120-150 trees per acre, but this number is then reduced by thinning out the poorest trees.

man. Both are right on their respective assumptions, but the assumption of the practical man is the more likely to be realised in practice.

The above discussion has been solely on the basis of bark consumption and renewal conditions; account must, however, be taken of the possible effect of diseases. This is a technical question upon which the present writer is in no way equipped to discriminate between the arguments of experts. But the non-technical man may perhaps be permitted to remark that sufficient time has not yet elapsed to supply proofs of the real effect of disease upon yielding-power, and that arguments, based on the conditions of European estates and their cultivation, usually seem to require considerable modification when applied to native gardens. And it must not be forgotten that behind this whole issue of the productive life of native gardens lies the fact that new planting is a more or less automatic process, and that unless and until the native entirely loses faith in rubber, he will continue to plant his annual clearing at least intermittently. Even such intermittent planting will probably balance any wastage by disease or obsolescence, and the prospect of any substantial reduction in the potential capacity of the Dutch native production is therefore

Resuming our general description, it has already been made clear that the planting is usually done by the resident owner and his family, though at the peak of the planting boom some hired assistance was doubtless often obtained, the owner becoming a manager pure and simple. On the other hand while prices remained reasonably high, that is until the spring of 1928, the bulk of the tapping was performed by labour hired on the bagi-dua system, the tapper retaining the market value of onehalf of the results of his labour. The supply of tappers came from a variety of sources. In some districts there is a local supply of labour which normally obtains its livelihood by working for others; such labour transferred itself from coffee, pepper, etc., or from public works, as soon as the price made rubber tapping a more lucrative occupation. But in Djambi and certain other districts there was an insufficiency of local labour for tapping as early as 1923–24, and with the steady growth of the area in bearing this soon became true of most districts, while probably no district can provide anything approaching the supply of tapping labour required to harvest the potential production which will be available from 1931–32 onwards. In many districts, therefore, it has been necessary to rely on immigrant labour. This is of

two kinds: immigrants, or really migrants. from other districts of Sumatra or of Borneo. and immigrants from Java. There has always been a good deal of migrant labour within Sumatra, but with the establishment of rubber in the eastern and southern districts, the stream from the northern and western districts became more clearly marked and extensive. In the main these migrant labourers do not colonise but return home. For example, in 1925 and 1926 Korinchis * from the west coast highlands supplied much of the tapping labour in Djambi, but with the rising coffee prices and falling rubber prices of 1927 and 1928 they found employment nearer home by turning to the former. On the other hand, migrants from the west coast district of Padang appear to have had a less remunerative alternative, and therefore continued tapping longer after the price of rubber began to decline. It should be remembered that rubber tapping is a far more physically pleasant occupation than most other kinds of tropical agriculture, and the native probably takes this into account in determining its relative merits as compared with other possible occupations. But, though very important, this migrant labour within Sumatra or within Borneo was insufficient without immigration from Java, and this has become increasingly true with the annual increase of the area in bearing. Emigration from western Java to Palembang has been a regular source of harvest labour for coffee and pepper, the emigrants returning home as soon as the harvest was finished. But with this exception there was little emigration from Java to Sumatra or Borneo until the rubber boom of 1925, other than that of contract coolies to European estates. The demand for tappers, however, quickly stimulated a large traffic, and then with the decline in prices, and therefore in the earnings of tappers, during 1928 and 1929 this traffic gradually dwindled away. For it is important to realise that the Javanese is no colonist; he will emigrate for a time, but only under economic necessity, and in no circumstances will he settle. It may be thought that this limitation to a "pain" stimulus is one-sided, and that he would emigrate also for a sufficient inducement. But fundamentally this is the wrong end of the stick; economic pressure is the real stimulus, though doubtless if he is making one guilder a day in Java, and is assured that he can make 1.50 guilders by more pleasant work as a tapper in Djambi, the economic pressure of one guilder a day at home

^{*} This people maintain female inheritance; hence the ladies are the owners of the rice fields, etc., and the males migrate to get money for courting, returning as soon as they have made what is considered a decent dowry.

seems to him more severe than it would do if tapping in Sumatra offered only a similar remuneration! For practical purposes the position may be summarised by saying that it takes a lot to induce the Javanese to emigrate, and while once he has taken the plunge, he may, despite reduced earnings, delay his return for a time in the hope that the situation will improve, he will return in due course. Rubber alone has so far been able to induce him to emigrate, the initial stimulus and the length of his stay varying in degree and duration with the current economic conditions in Java relative to the possibilities of profit as a tapper; but not even rubber will induce him to colonise.*

As the price of rubber declined during 1927, the immigrant tapper found it more and more difficult to obtain what he considered an adequate remuneration. Some drifted away to other occupations or to their homes, and those who remained were often successful in demanding two-thirds instead of the customary half share. These developments did not, however, mean a great decline in the output of native rubber, for when the hired tapper stops, the native owner has to take his place in order to maintain his money income. Broadly speaking, the Malay has at any given time a definite standard of living. When the price of rubber is high, he can get this through hired tappers, and so he himself takes a rest, and during the height of the boom even his wife and children were allowed to do the same! When the hired tapper ceases to find tapping a profitable occupation and goes off, the Malay owner must start tapping himself. The lower the price falls, the more must the Malay exert himself in order to maintain his standard of living, and so production is maintained, and may even tend to rise until the point is reached when the Malay owner must either turn to some other, and temporarily more profitable, occupation, or reduce his standard of living. There are signs that during 1930 the former has been taking place to some extent in certain districts, but since most native industries have been badly affected by the world slump, and since in many districts there is virtually no alternative occupation, the output of native rubber has not declined as much as might have been expected, and any drastic reduction is most unlikely, at least so long as the prices of other tropical products remain at the present low level. For it must be realised that the native owner receives only half the value of the rubber produced by hired tappers, whereas he receives the full market value if he taps himself; thus a price which deters hired tappers may still be a highly remunerative price to the owner and his family, the only drawback being that he must work himself. Though a London price of 4d. means a low rate of remuneration even to the better situated native owner, yet in the absence of more lucrative employment, and since labour is his only cost, he will probably continue the production of rubber, and if necessary reduce his standard of living. In the more remote districts, however, such a London price means a local price approaching zero, and if his local market thus disappears, production must perforce cease.

The problem as to the exact price level at which hired tapping will start, and that at which it will stop, is therefore exceedingly complicated, depending as it does on so many variable causes. The price needed to start hired tapping may be taken as considerably higher than the price at which it will stop, for in the first instance the dislike of emigration must be overcome, whereas once having taken the plunge, a man will try and get a good run for his trouble in emigrating. The price needed to start emigration depends not only on the prospective money gain to the tapper, but on the prospective real gain, which largely depends in its turn on the price of rice, for this governs the emigrant's cost of living. The prospective real gain must then be compared with the prospective real gain of remaining in Java; if conditions of employment and living in Java are severe, a given price of rubber will be a more effective stimulus than if Java is thoroughly prosperous. It might, indeed, be said that, whatever the price of rubber, there would be little or no emigration if times were good in Java, but it must be remembered that even when times are relatively good, the native population is so great that it is always, so to speak, treading on the heels of subsistence according to the current standard. Much the same sort of factors apply to migrant tapping labour from other districts of Sumatra and Borneo. It is necessary to take into account the current prices of pepper, coffee, etc., and also the current supply of ready cash circulating in the interior, for this greatly affects the purchasing power of a given money wage, as well as the degree of necessity to earn. Finally it should be noted that the relation between the world price of rubber (e.g. Singapore or London) and the price in the up-country markets is not always constant. A rise in the world price usually appears to cause a more than proportionate rise in the price offered by

^{*} This is in fact one of the key economic problems of the N.E.I., and unless it alters, the teeming millions of Java will continue to press upon the natural resources of that island, despite their magnitude, while the general economic development of the Outer Possessions will continue to be hindered by lack of a population adequate to exploit their still more abundant matural resources.

the merchants at the markets of the interior, because the merchant reckons on the possibility or probability that by the time the rubber has reached Singapore, its value will have appreciated still further; conversely, a fall in the world price usually means a more than proportionate fall in the interior price, the extent in both cases depending upon the distance of a particular interior market from Singapore, the suddenness of the change in the world price, and also the frame of mind of the Chinese dealers. Hence arguments based on past experience—and that has so far been small enough —should not be regarded as trustworthy; ther are far too many variables which it is next to impossible to evaluate. At the present time account must also be taken of the probability that the Chinese merchants are cutting their customary margins on rubber, in the hope of making good this deficiency by the maintenance of the usually extremely lucrative trade in im-

ported goods for native consumption.

Consideration of the quantitative aspects of this problem, as also of the problem of the potential capacity of Dutch native rubber production, need now be postponed only in order to round off this general qualitative survey with a few remarks as to marketing. Almost universally the native prepares his rubber in the form of thick wet slabs, and until about 1925 half the business of rubber production, especially in the district of Djambi, consisted in how much material other than rubber could be packed inside these slabs, without arousing the buyer to make a more than average allowance for the same in his price! Some districts were, however, much better than others in respect of the mixture of moisture and dirt, etc., and the Dutch Investigation Committee's reports show percentages from 50 for Djambi down to as low as 10 for smaller producers such as Indragiri and Tapanuli. The average is reckoned as $33\frac{1}{3}$ per cent. for the period 1923–25. In 1925 the Dutch Government officials began to introduce legislation prohibiting adulteration and excessive moisture, and though for a time, especially in Diambi, there was difficulty in enforcing the more drastic regulations, there has been a steady though small diminution in the moisture content, which is now probably about 28 per cent., and a great improvement as regards adulteration, the grosser forms of which have virtually ceased. The imposition of the export tax on native rubber in 1925 had an extremely good effect, because, being payable on the weight of rubber, the middlemen and exporters were careful to make a suitable discount for the tax they would have to pay on very high moisture content or adulterated rubber. While

the diminution in the average moisture content will probably continue, there will be no radical change so long as the Dutch native continues to produce wet rubber for remilling rather than dry rubber as prepared by small-holders in British Malaya. This is perhaps not very likely, for the cost of remilling in special factories is not so great as to leave much margin, while since the transport of Dutch native rubber is so largely by water, whether to the local Dutch remilling factories or to the Chinese plants in Singapore, unnecessary weight is of less importance than it would be with land transport.

Up to about 1925 the buying of their rubber from the natives was almost entirely in the hands of Chinese shopkeepers and dealers. Since then Malays and Arabs have in many districts successfully taken up the business of buying up-country at the native's garden or some small village market. These up-country dealers take the rubber to the principal market town of the district, and there dispose of it to the larger Chinese dealers who export it to the remilling factories at Singapore. Natives near these big markets, however, usually themselves transport their rubber thither. But in 1925 the supremacy of the Singapore mills was attacked by the establishment of the Rubber Unie with its local mills at the principal centres. The Rubber Unie was promoted chiefly by the Dutch shipping companies who wished to prevent the native rubber going to Singapore, mostly in Chinese steamers, and thence, after remilling, in British instead of Dutch bottoms to Europe and America. The N.E.I. Government, however, was keenly interested on the same grounds for national reasons, and when certain foreign interests threatened to enter the local remilling business, legislation was enacted providing that they must have a Government licence, on the ground that otherwise excessive capacity might be installed. The Rubber Unie, however, has had a somewhat stormy and difficult career. Its inevitable and perhaps somewhat excessive overhead costs made competition with the Chinese dealers most difficult. Further, the Chinese mills buy their rubber, mill it, and then sell it; in other words, they are prepared to take a speculative position, and this aids the Chinese dealers who in turn do not object to some element of speculation in their own operations. The Rubber Unie, however, adopted the policy of selling in New York, and then buying in sufficient quantity to cover themselves. But this meant a definite limitation of its buying price, and by indulging in a little speculation the Chinese dealers often starved the Rubber Unic mills of supplies. In 1926 several of the mills were closed down, and it seemed that the whole concern was on the verge of disaster. A drastic reorganisation was however put in hand, and at the end of 1929 the prospects appeared more hopeful. But judging by the absence of any proportionate increase in the N.E.I. exports of remilled rubber, the Unie has not yet been able to make much headway against its Chinese

competitors.

The way is now clear for a quantitative study of the subject. For present purposes this can be confined to two issues, first the potential capacity for production, and secondly the probable actual production at different price levels, both of course in relation to specific dates. While easy to formulate, these problems are, in quite different ways, most difficult of solution, and it may be said here and now that such answers as can yet be given should be regarded as subject to a very considerable margin of possible error, especially in the case of actual production, as the experts on the subject would be the first to admit, even though at the moment there is tolerable agreement between them. The potential capacity will be considered

The earliest definite estimate of the future production of Dutch native rubber as a whole * appears to have been made by Dr. Rutgers, the Director of Agriculture in the N.E.I., in his lecture at Amsterdam in November 1925. His forecast that unless the price went below is. per lb., the output in 1930 would be double that of 1925, and therefore not less than 150,000 tons, has already been quoted. The final report of the Dutch Native Rubber Investigation Committee, issued at the end of 1926, concluded that the area planted since 1922-23 was already between two and three times the area planted before that date (i.e. the area not yet in bearing as compared with the area already in bearing), that the actual production of 1925 and 1926 was very near the full potential production at that time, that owing to the absence of planting in 1920 and 1921 the output would not show any appreciable increase in 1927,† but that from 1928 there would be a continuous and very considerable increase, and that the production of 200,000 tons in the future was "not impossible."

The Dutch are perhaps by nature of a cautious disposition, and in addition the more cynically-minded observer may point out that it was not to their advantage in 1926 to blast the already waning British faith in restriction

* I.e. apart from estimates for particular areas made by the investigators of the Dutch Committee during the spring and summer of 1925.

by forecasts of a more sensational nature than was compatible with the facts revealed. Most probably, however, these estimates were made in perfect good faith; it was hard enough for any one at the time to credit the idea of even 200,000 tons, and London could not get that far. It is now virtually certain that these Dutch estimates were too low, but their practical significance was the same as if they had been much higher. The necessary correction was made by Dr. Whitford in his first report, published in the autumn of 1928. He followed the Dutch Investigators in tackling the problem by attempting to estimate the proportions of old rubber (i.e. planted before 1922) and of new rubber (i.e. planted since 1922), and then applying this proportion to the estimated potential output of the old area, rather than by any direct estimate of the planted acreage and the average yield per acre. The only alternative is to estimate the average yield per acre and the potential capacity of the old area, thus arriving at an estimate of the acreage of the old area, and then multiplying this by the estimated proportion between the old and the new plantings in order to arrive at the acreage of the new area, and so at its potential capacity. This was the method adopted by Messrs. Tayler and Stephens, but it is really essentially the same as Dr. Whitford employed, so far as potential capacity is concerned, and the estimates of acreage depend upon the average yield per acre, which is a most difficult matter to ascertain during a short visit, as Messrs. Tayler and Stephens openly admit. Doubtless it is desirable to have some idea of the acreage old and new, and of the yield per acre, but after all what chiefly matters is the total potential capacity. Dr. Whitford does give estimates of acreage and yield, but as he particularly points out, these may be quite erroneous without in any way falsifying his estimates of potential capacity.

Dr. Whitford's estimate of the potential production of Dutch native rubber in 1935 was 350,000 tons, and in his second report (issued December 1929) this figure is unaltered. He put the potential capacity in 1927 at 100,000 tons, and his fundamental estimate is that the new area was three times the old area, i.e. the area in bearing in 1927. This means a production of 300,000 tons from the new area, and to this is added 50,000 tons for the old area, the capacity of which is expected to decline rapidly after about 1931. Messrs. Tayler and Stephens estimate that between 1935 and 1937 the potential production "might total as much as 300,000 tons." Bearing in mind that these estimates are essentially rough approximations only, there is little disagreement as to the

[†] Actually the exports in 1927 amounted to 20,000 tons more, but these export figures include an unknown amount of smuggled rubber, and the increase was probably not more than about 10,000 tons.

general order of magnitude. It seems tolerably certain that the Dutch native industry will be physically capable of producing 300–350,000 tons of rubber by 1935. There is also general agreement that the increase of potential capacity becomes very marked between 1931 and 1933, when the heavy plantings of 1925 and

1926 reach peak production.

As regards the total acreage and yield per acre, however, these investigators differ very greatly. Dr. Whitford in his first report inclined to the view that the average yield per acre was about 440 lbs., and therefore put the total planted acreage at about 2,000,000 acres. In his second report he revised the average yield figure, as the result of further investigation, to 560 lbs. per acre, and he therefore reduced his estimate of the total planted area to 1,600,000 acres. Messrs. Tayler and Stephens assume that the average yield was not less then 700 lbs. per acre-"the lowest figure compatible with our investigations "-and therefore calculate the total planted area at 1,050,000 It is clear, therefore, that there is as yet no certainty whatever as to the normal average yield per acre, or as to the planted area, but as has been said, the really important fact is the potential capacity, and on this there is sufficient

agreement for all practical purposes.

Our second quantitative problem, namely, the actual output to be expected at different prices, is perhaps even more difficult because, as has already been described, it involves a large number of highly variable factors, many of which are not susceptible to accurate evaluation even at any given moment of time. Summing up his judgments on all the factors involved and the evidence available, Dr. Whitford in his first report considered that up to 1932 the local supplies of labour without outside help would produce 90 per cent. of the potential capacity (which he reckoned would have amounted to about 306,000 tons in the year named) if the New York price were maintained between 20 and 30 cents per lb., i.e. a London price of say 10d. to 1s. 3d. After 1932 he considered that outside help would be required, and that a price of at least 30 cents., or say is. 3d., would be necessary to stimulate immigration to the extent necessary to produce 90 per cent. of the potential capacity, which would reach 350,000 tons in 1935. In his second report Dr. Whitford was less definite. He is clear that to harvest the full potential capacity in 1935 outside labour will be required in most districts, unless the competition for labour by other products, such as coffee and pepper, is relatively weak, but in his second investigation he appears to have been impressed by evidence that the percentage of the new area owned by families whose rubber gardens are not usually larger than the members of the families can tap, is larger than the corresponding percentage of the old area. Hence he confirms the proposition in his first report that even with very low prices the actual output will not fall below 50 per cent. of the potential output at any time, but for the rest he will not go beyond the vague conclusion that "should the price of rubber be low, the indigenous labour would fall short of producing the total estimated potential capacity of 350,000 tons by 1935. With more attractive prices enough outside labour might be obtained to produce much nearer the potential capacity."

Messrs. Tayler and Stephens' conclusions are both frank and summary: "It is impossible to suggest any scale of probable outputs correlative to varying prices of rubber. But the evidence collected points to the outputs approaching the potential with a price of is. 6d. per lb." The Dutch experts have been even more guarded; in July 1929 * they would only commit themselves to the view that "at a constant price of is. the population will tap as much as possible," adding, however, that "potential production is not quite obtained" owing to shortage of local labour. Attention may, however, be drawn to the use of the present tense in the latter quotation, for this suggests that the available supply of local labour was not even adequate to realise the full potential output of 1929; if this is true, it would be entirely inadequate to realise the greatly increased potential output from 1931 onwards.

My own inquiries in Java during the spring of 1930 convinced me that the best informed Dutch opinion is unanimous in viewing the problem in terms of the price level required to stimulate sufficient immigration into the rubber districts from other districts in Sumatra and Borneo, and from Java itself, particularly the latter; they discount the idea that, even allowing for the natural growth of population, the local supplies of labour are adequate to produce much more than half the potential production from 1931 onwards. I therefore conclude, though with much hesitation, that probably Dr. Whitford has an exaggerated idea of the available supplies of local labour, taking the rubber producing areas as a whole. He is very likely right in insisting that even with very low prices the actual output will not fall below 50 per cent. of the potential output, though it may be wondered whether even he envisaged a London

^{*} See Third Report of Native Rubber by A. Luytjes, etc. The report was probably written earlier in the year, when the price was rising and had nearly reached 1s.

price of 4d. when he wrote his second report in the autumn of 1929. But it involves no contradiction of this proposition to maintain that not much more than 50 per cent. will be realised unless and until the price rises very substantially. Assuming the validity of the general order of the magnitude of the potential capacity, hired tapping labour will be required to harvest much more than 50 per cent. of the potential capacity which is now just beginning to increase so greatly. The crucial question, as was pointed out in our qualitative study, is the price required to attract hired tapping labour. My inquiries in Java led me to believe that in the general economic conditions then prevailing (February 1930) little or no hired tapping would begin again unless and until the London price rose to is. and stayed there for some months. Below is., therefore, it then seemed extremely doubtful whether the output of Dutch native rubber would rise much above 120,000 tons in the next two years, and beyond about 150,000 tons even in 1935. With prices at is., a greater proportion of the potential output would be realised, and at prices between is. 3d. and is. 6d. the potential output would be nearly attained. This idea of the price required for the full potential output corresponded roughly with Dr. Whitford's first conclusions and with Messrs. Tayler and Stephens, but I differed from the former in believing with the Dutch that he over-estimated the output obtainable at a price of say 9d. to 1s., while the brevity of Messrs. Tayler and Stephens' summary may be criticised as minimising the probable output between is. and is. 6d., even though this is to a large extent corrected by a careful reading of their report as a whole.

These conclusions, however, relate, as has been said, to the general economic conditions in the N.E.I. last spring. During the past twelve months the position has changed greatly, and almost universally for the worse. The prices of all plantation products have fallen

heavily, and as the result of economies in the employment of labour, the general level of wages has been reduced so that apparently the native can no longer reckon on making his guilder a day in Java. The fall in prices has also affected most native products, and the normal pressure of the population on the means of subsistence appears to have been considerably intensified. On the other hand, the fall in prices has of course greatly reduced the prospects of securing remunerative employment by emigrating to Sumatra or Borneo, and at the moment the natives everywhere have only the recourse of, in the white man's phrase, tightening their belts. If, however, the price of rubber were to rise substantially, while the prices of all other products were to remain near their present low level, and general economic conditions in Java remained depressed, migration within Sumatra and Borneo, and immigration from Java, would probably commence on an appreciable scale, and it might be that a price of 9d. to Iod. for rubber would call out a volume of production which would not have been realised below a price of is. or even higher a year or so ago. Such a one-sided development of conditions is not perhaps very likely, but it is not impossible, and therefore the conclusions reached above in respect of normal probabilities must be qualified to this extent.

The main object in making this survey of the Dutch native industry has been to furnish the data necessary to estimate its economic significance, now and in the near future, in relation to the world's rubber supply, and particularly its role as an actual and potential competitor with the European plantation industry. It must, therefore, be repeated that no comprehensive detailed survey has been attempted, and that the risk involved in such generalisations as have been made above is recognised as justifiable only, if at all, in order to bring out clearly the essential features and factors relevant to the consideration of these two broad problems in the next section.

On November 1, 1928, British producers became free from the bonds, or as some felt, the supporting bands, of restriction and Government regulation, but even to those who took the former view, the prospect, both near and far, must have seemed about as gloomy and hopeless as it does to most ex-prisoners. tunately, perhaps, the full realisation of the fundamentally critical position * of the plantation industry in general, and of the British section of that industry in particular, as it appeared at that time, was confined to the comparatively few persons who were in a position to look beyond the immediate future. The vast mass of British rubber shareholders, and the man in the street, saw little further than the next six months, and that seemed bad enough. While consumption seemed to have resumed a rapid rate of expansion during the autumn, and while stocks in consuming countries had everywhere been reduced to the lowest possible level, vet both estates and small-holders had resumed full production as quickly as possible during the summer, and huge quantities had been accumulated for shipment from November I onwards; the price was but a little over $8\frac{1}{2}d$., and it seemed likely that the supplies released on November I would be more than adequate for all requirements. Restriction had apparently left the price but little better in relation to costs of production than it found it, and altogether the outlook for 1929 was most unsatisfactory. But beyond that, if the average shareholder projected his thoughts so far, the situation did not seem to him altogether devoid of hope, for though he realised that there had been a good deal of new planting in the N.E.I., world consumption might be expected to out-balance that and more, especially with American prosperity apparently firmly in the saddle and quickening the pace daily. Eventually there would be room for everybody at prices of is. 6d., and meantime all that was necessary was to show a little British bull-dog tenacity during a temporary crisis. It was on this further outlook, however, that the experts knew better, even though they may have kept their dismay more or less to themselves. Their realisation of the apparent impasse with which the plantation industry was faced may not perhaps have been complete so early as November 1, 1928, for the truth about the Dutch native rubber situation met with a great deal of scornful disbelief and hardness of heart in London even at this

time, though the Dutch planters were completely converted and correspondingly fearful. But many British as well as Dutch leaders of the industry appreciated the essentials of the situation sufficiently well in November 1928 to make excusable any slight anachronism in the following summary of the position, as it appeared in the winter of 1928–29. Though subsequent developments were to alter radically the outlook as it then appeared, the changes thus brought about cannot be fully and properly appreciated without an understanding of what was changed. Stress must be laid upon the point that this summary refers to 1928, and is not a summary of the position as appears to dow in 1928.

appears to-day in 1931.

Full production was resumed after April 1928 more or less as fast as the necessary labour force could be procured; it does not appear that the members of the R.G.A. paid much heed to the official exhortations of their leaders on the undesirability of accumulating large stocks against November 1. Many estate managers in Malaya were surprised at the unexpectedly large yields of their trees, but this was almost universally attributed to "flushproduction" following the enforced resting which restriction had entailed. On the assumption that these high yields would be temporary only, average costs were believed to be about 9d. Mr. Ormsby Gore, in the report * of his official visit to Malaya, Ceylon, and Java during 1928, gathered from discussions in Malaya that a few large estates could produce at 6d. per lb., but the majority's costs were between 7d. and 9d. at 100 per cent. output; he is here referring to f.o.b. costs only. An average of 9d. for "all-in costs" may perhaps be on the low side, and is certainly not above the beliefs current in 1928 as to what longperiod normal costs would prove to be when the flush production was over. In comparison with European estates, the Asiatic estates could certainly produce much more cheaply, and though the life of their trees might be shorter, that was a factor in the comparatively remote future. As regards the much more important smallholdings production, the natives were obtaining yields per acre far above those on most European estates; partly this too was flush production, but nearly all European planters were convinced, even in 1928, that the small-holder was over-tapping, and that ultimately he would run short of bark, though owing to the restriction period he was starting with a good supply, and

^{*} No reference to the present slump is here intended; that was not foreseen by any one in 1928. The reference is simply to the apparent impasse now about to be discussed.

therefore a very heavy output must be expected to continue for some time.

Clearly the European estates were confronted with a serious competition within Malaya, but this was relatively unimportant compared to their position vis-à-vis the Dutch Mr. Ormsby Gore put the estates in Java. average costs of these latter on an f.o.b. basis as between 4d. and 5d. Subsequent information suggests that these figures were perhaps on the low side, and that the average "all-in cost" was not below 6d., but even so the difference as compared to the current estimates of average costs in Malaya remains formidable. In 1922 average costs in Java were probably higher than in Malaya; by 1928 the position had been reversed,* while the total output of these Dutch estates had been nearly doubled. In the main, the reduction of costs in Java had resulted from increased yields per acre which had been brought about by more scientific methods of cultivation and tapping, while the more recently planted areas had benefited by the use of better planting material. The only difficulty from the point of view of the Dutch estates versus Malaya, was that they were enjoying no temporary flush production, since their trees had received no enforced resting during the preceding years.

The competition of the Dutch estates with the British estates in Malaya, still less the competition between the latter and the smallholders in Malaya, was however of quite minor importance compared to the apparent menace of the potential Dutch native production within the next few years. In 1922 the output of Dutch native rubber was not more than 20,000 tons dry-weight; in 1928 it was 89,000 tons, and it had been up to 100,000 tons in 1927, though in that year a substantial amount must be deducted on account of rubber smuggled from the restriction area to Dutch territory, and then exported back to Singapore.† This 80,000–90,000 tons had come almost entirely from pre-restriction plantings, and from that source there was little likelihood of any further substantial increase. The menace lay in the enormous acreage planted during the restriction period. The Dutch experts considered that by 1935 the potential output would be not less than twice, and not more than thrice, the output of 1928, or say between 200,000 and 300,000 tons. Dr. Whitford, who had been sent out by the

Rubber Association of America in the autumn of 1928, was shortly to report an estimate of 350,000 tons. There could be no certainty as to the exact figure, but there was little doubt that the potential production of Dutch native rubber was so large as almost to take care by itself of any probable increase in the world's demand for many years, while in the next two or three years the potential production would add considerably to the excess supplies which were in sight from other sources. Much, however, depended on whether this potential production would be realised. This again was a problem incapable of exact solution, but the conclusions of the Dutch Investigation Committee, shortly to be confirmed in general by Dr. Whitford, was that a London price of is., or a little over, would be sufficient to draw out the greater part of the potential supply. Here lay the crux of the problem from the point of view Malaya, and also, with modifications, of Ceylon. If average estate costs were in the region of 9d. to 10d., the price would have to rise above is. before any reasonable profits could be reaped, and it would have to rise considerably higher still before new planting on any large scale would be undertaken. The plantation industry was in a cleft stick; with prices below is. the potential output of Dutch native rubber could be kept shut in, but estates would make quite inadequate profits: with prices above is., estates would be in a profitable position, but the resulting output of Dutch native rubber would probably make it impossible to maintain prices at that level, for the experts were agreed that though tapping would not begin on the requisite scale so long as prices remained under 1s., yet, once started, it would probably continue for a long time even if the price dropped back again to a much lower level. In any case, there seemed no hope of maintaining the price at a level which would stimulate new planting by European estates, and even if such a price level was realised, it would probably result in a greater stimulus to Dutch native planting than to planting by estates. The Dutch estates were essentially in the same position, though their supposedly lower costs meant that the cleft was a little wider in their case. The real issue was not between British and Dutch estates, but between the European plantation industry as a system or instrument of production and the native. Whatever the minor errors in his summary, Mr. Ormsby Gore was quite correct in his realisation of the central fact that in 1928 it seemed that rubber production might "quite conceivably follow the example of the coconut industry, and become a predominantly native

^{*} A comparison of average costs in two countries is even more difficult than the calculation of average costs in each country separately, and too much attention should not be paid to the figures given, though the general proposition is valid enough on the assumption that normal costs in Malaya were about 9d.

[†] Probably there was some rubber so smuggled in 1928 also, but it would not be very much in that year.

crop," * and that the only justification for the plantation system is "the application of greater intelligence and skill than the native can reasonably be expected to acquire "; hence the great stress which he laid on the importance of research work, etc., by the plantation industry.

The outlook from the point of view of the Malayan estates was indeed as bad or worse in the long run as in the short. While emphasis has been laid on the factor of Dutch native rubber, the situation was greatly complicated by the native production within Malaya itself, with its similar absence of overhead costs, and of elaborate labour code, and with almost no limit to the economies which the native owners might make in their standard of living. For, unlike the Dutch native, the Malay small-holder has few other sources to which he can turn for a cash income, and therefore he would continue production at prices which would have ceased to attract the Dutch emigrant labour required to supplement the labour of the resident owners if full potential production were to be achieved. The only chance for estates seemed to be to discover and adopt a greatly improved technique of production, and so regain some part of the

lead which they had once enjoyed.

Such was the outlook at the end of 1928. During the year 1929, however, restriction was to present the plantation industry with a quite unexpected aftermath of such a nature as materially to alter this outlook in various ways. The dictionary defines the word "aftermath" as "a second crop of grass in a season," and this very aptly describes what happened. harvest of restriction, such as it was, had been reaped, but there was to be an aftermath, and one of far greater importance than the harvest The export figures for November and December 1928, and to a lesser extent for January 1929, were of course swollen by the stocks which had been accumulated in preparation for the removal of restriction on November I, but as the subsequent months passed by. there was no such decline as had been anticipated, and if allowance be made for the effects of wintering, the shipments of Malayan produced rubber settled down at a level of about 38,000 tons a month. This was enormously more than had been anticipated. The highest standard production of the restriction period, that for the restriction year 1926-27, had been 335,000 tons, and the general estimate for Malayan production in 1929 was in the neighbourhood of 350,000 tons, i.e. an average rate of under 30,000 tons a month. Throughout the

summer of 1929, the explanation commonly given in London was in terms of "flush production" after the enforced resting during the restriction period. But past experience pointed to the conclusion that such flush production never lasted more than three or four months,* and by the autumn of 1929, nearly all estates had been on full normal production for at least a year. The production † of Malaya eventually totalled no less than 440,000 tons. Of this total, estates over 100 acres produced approximately 240,000 tons as against a standard production of 200,000 tons in 1926-27. This was a considerable increase, but it was nothing to the increase in the small-holdings production, which totalled 200,000 tons in 1929 as compared with a standard production of 125,000 tons in 1926-27, the year of highest assessment. Other countries, with the partial exception of Ceylon, showed no appreciable increase above expectations, but if they had, the discomfiture of the statistical prophets could hardly have been much greater.

By the end of 1929 the real significance and the true nature of this great increase in the output of Malaya were alike beginning to be understood. All explanations in terms of flush production had worn extremely thin as month after month the shipments showed little or no reduction. Gradually came the conviction that there had come about a more or less genuine and permanent increase in normal yields per acre. So far as estates were concerned, this increased yield was a more or less direct aftermath of restriction. During that period, and especially during the last three years, most estates at one time or another had a reserve of labour in order to be able promptly to meet any increase in the percentage exportable. This labour was employed in cultivation,‡ e.g. bunding, construction of silt pits, aeration drains, etc., the importance of which had everywhere begun to be The enforced resting gave the trees an opportunity to benefit fully from these improved methods of cultivation, and the combined result was not mere recuperation, but in a sense the making of new trees. At the same time much experimentation in tapping methods, and in the organisation of tapping, was being carried out, and had been brought to fruition by 1928. Thus the introduction of periodic tapping, e.g. on A B C or A B C D systems, the reduction in the task of the individual tapper, and the consequent performance of the actual

The net exports were higher but included some stocks

^{*} As Mr. Bluett, the British Commercial Secretary at Batavia, had realised four years previously.

^{*} Many authorites would say six or eight months, but the shorter period coincides with the views commonly expressed by plantation managers in Malaya.

carried over from 1928.

‡ On the negative side, so to speak, the abandonment of clean weeding was a great step forward.

tapping earlier in the morning, were three most beneficial changes among many, and these new practices further assisted not merely towards flush production, but the maintenance of the new life and vitality which the resting and the improved cultivation during restriction had conferred upon the trees. Thus, while it would be idle to deny that specially favourable climatic conditions during the year, or other undiagnosed temporary causes, may have contributed to some small extent towards this great increase of yield, in the main it unquestionably is of a permanent nature, due to the above-mentioned causes.

As regards the even greater increase in small-holdings, the tale is rather different. the first place, there is no doubt that on the standard of what would have been produced if there had been no restriction, the small-holders were very much under-assessed, at any rate during the later years of restriction, and a considerable allowance must be made on this score before any genuine increase in yields can be conceded. But the increase is too great to be explained entirely in this way, and therefore it is reasonable to suppose that the more widespread copying and adoption of European practices, especially the greater care bestowed on the actual operation of tapping, and even some attempts at drainage, etc., may have made for some permanent increase in yielding There remains the question as to how far the result involved over-tapping, that is a too rapid consumption of bark to allow sufficient time for renewal. A good deal has already been said on this general subject. 1929 a certain proportion of the small-holders were without much doubt over-tapping, but it is doubtful whether this proportion, and the degree of over-tapping, were sufficient to make any material contribution to the total output. It must be reiterated once more that bark renewal is undoubtedly more rapid on smallholdings than on the average estate, that the native will tap bark which is too thin to be tapped according to estate standards, and that under the physical conditions of small-holdings the rubber tree will stand a great deal of rough treatment for a period of years rather than months, even though its ultimate life may eventually prove to be shorter than the life of trees on European estates. In the early spring of 1930, the general opinion of European planters was that there would be a big fall in the output from small-holdings before the end of that year, but Government officials and other persons who have studied the native industry with care and with an open mind, were doubtful as to the validity of this conclusion, and some were expressing the view that the native would continue to make his trees yield at the current high rate for a much longer period.* The decline in prices during 1930 has, however, very considerably changed the position; whereas the output of native holdings has been maintained during 1930, there seems little doubt that the native has been tapping more heavily than in 1929, and on the assumption that even by native standards this heavy tapping amounts to really serious over-tapping, there may be a considerable decline within the next few months. The validity of that assumption, however, remains to be proved; the native may be killing his trees, but while they are alive, he may succeed in obtaining nearly the recent rate of yield, and it may take five or ten years to kill

them, even temporarily!

To return to the estates, the causes of the aftermath of restriction have been explained, but it remains to consider its significance. The result on costs of production has been little short of revolutionary. The mere increase in the total output meant that over-head costs per lb. of rubber produced were very considerably reduced. But this increased output was obtained not by tapping all the trees on the estate more or less regularly and continuously, but only a proportion, for on an A B C system, for example, one-third of the estate is always This means a still higher yield per acre actually being tapped, and therefore a large reduction in the direct costs of tapping, though not so large as it would have been if the individual tapper's task had not been greatly reduced, as has in general been the case. The combined result of all the altered conditions is that average normal "all-in costs" to-day (i.e. allowing for proper expenditure on cultivation, upkeep, etc.) are probably under 6d. per lb. The data for any mathematical calculation of such an average are almost completely lacking though inferences can be drawn, with suitable modifications, from the cost statistics of which many companies have now resumed publication. It may well be that the average is really nearer 5d., for there are many estates, most of them far above the average size, whose normal costs are probably under 4d.† At the other end of the scale there are a few estates whose normal costs are 7d. or over, but these are old estates whose soil or trees have been irretrievably ruined by the malpractices of the early days, or whose site was badly chosen in

* See, for example, the comments of Mr. Gordon Carrie on the official statistics.

[†] The great difficulty in estimating normal costs is to determine the extent to which actual costs at the present time represent economies which can only be temporary, e.g. reduced wage bills and temporary economies in upkeep, etc.

the first place. As a general working proposition, it may be concluded that the full normal costs of at least 85–90 per cent. of the output of Malayan estates would now be covered at a

price of 6d.

The aftermath of restriction, therefore, brought down Malayan estate costs to the same sort of level as the costs of the Dutch estates in Java.* The supposedly great difference in 1928 was really fictitious. All that had happened was that in Java the effects of the advance in productive technique had been realised steadily and visibly, whereas in Malaya restriction had concealed this advance, and dammed up the effects, so that they burst through in visible and accumulated form as soon as restriction was removed. But a still more important result was the entirely altered appearance of the European estate versus the Dutch native as a system of rubber production. A reasonable capitalisation of existing estates would be in the region of £60 per acre, and the average yield may be taken at 400 lbs. per acre. On this basis and with "all-in" costs at 6d., a price of $11\frac{1}{2}d$, would be necessary to give a return of 15 per cent. on the capital, and if this is considered unnecessarily high, a price of $9\frac{1}{2}d$. to 10d. would suffice for a return of 10 per cent. But it must be remembered that many estates have unplanted reserve areas, and these extensions can be planted up at a much smaller capital cost, say from £20-40 per acre. Further, such extensions can to-day be planted with material yielding at least twice the 400 lbs. per acre which is the basis of the above calculation, and with these larger yields the costs of production would be lower. Hence a price level of 9d. to 10d. would be a more than ample stimulus to the planting of extensions, and would give a satisfactory profit to even the marginal producers. But the total unplanted reserve lands will not for long enable production to expand sufficiently to meet the probable increase in consumption; † new estates will have to be established in the more undeveloped territories. This is much more costly than the planting-up of extensions; it would probably cost £70-80 per acre, or, with interest during the development period, perhaps as much as £100 per acre. Nevertheless, planted with material yielding 800 lbs, per acre, the all-in costs would not exceed 5d. at the outside, while to pay 15 per cent. on the capital would require another $4\frac{1}{2}d$. Thus a price level of 9d. to 10d. should afford an ample stimulus even to the extensive planting of completely new estates. These calculations certainly do not err on the low side; an average price level of 9d. to 10d. will be quite satisfactory from the

producers' point of view.

From the point of view of the estate industry, therefore, there is now no need for prices to rise as high as 1s., and in 1928, and even in 1929, the general opinion of the experts was that there would be only a comparatively small increase in the Dutch native production so long as the price remained below that figure. To-day, at we hope the lowest point of a world slump, conditions in the N.E.I., as everywhere else, have changed considerably; wages in Java are said to have been reduced, opportunities for normal employment have become less, and, on the other side of the problem, rice is cheap, and the native owners are willing to give tappers on the bagi-dua system two-thirds and more instead of the customary half share. If one could conceive of these conditions remaining as they are, and the price of rubber rising to 10d., it seems quite possible that the Dutch native output would increase substantially. But this is a remote possibility, and there is little to suggest that when the world depression passes, the native emigrant wage-earner will find rubber-tapping a sufficiently attractive proposition so long as the London price remains below is. The menace of the vast native rubber areas of Sumatra, Borneo, etc., is a menace to the existence of the European industry no longer; it remains a most important factor, especially in respect of the future extension of the plantation industry—a matter which will shortly be considered—but there is now no prospect that "rubber will go native." On the contrary, the year 1929 completely reversed the situation, and, so to speak, put the estate system at least ten years ahead of the native, and with every prospect of an eventually complete supremacy. The aftermath of restriction was of no mean order.

Consideration has been given first of all to the long period aspects of the aftermath of restriction because of their fundamental importance, but the immediate results of such a great increase in the supply of rubber must now claim attention. This, however, involves a consideration of the demand side as well, for the surprises of 1929 were not confined to Malaya. Mention has already been made in another connection of the enormous and totally unexpected increase in the world's demand,

* The costs of estates in Sumatra are higher, mainly on account of high labour costs, but the nature of the technical progress was essentially the same as in Java.

† Dr. G. Rae, in the discussion on his paper published in the

† Dr. G. Rae, in the discussion on his paper published in the bulletin of the R.G.A., February, 1931, estimated the unplanted area of estates in Malaya to be about 25 per cent. of the present planted area; in Ceylon to be rather less than this proportion; and in the N.E.I. to exceed the present planted area by a considerable margin. He adds, however, that "some of the unplanted area of estates is not suitable for rubber planting."

which began in the autumn of 1928 and continued until the autumn of 1929. In 1928 the world absorption of crude rubber had totalled 680,000 tons, an advance of 80,000 tons on 1027, for most of which increase the U.S.A. was responsible. Estimates for 1929 were in the neighbourhood of 700,000 tons; actually the figure proved to be no less than 807,000 tons, and of the actual increase the U.S.A. was responsible for only 30,000 tons. The continued increase of the U.S. demand was somewhat unexpected, but the real surprise was the increased absorption by Europe. In part the increase in Europe and the rest of the world probably represented some rebuilding of manufacturers' stocks, which had been allowed to fall to a minimum in anticipation of huge supplies, and consequently very cheap prices, after November I, 1928, when the accumulated stocks in the East would become exportable. But by September 1928 the market had more or less fully discounted this possibility, and with the daily strengthening of demand, the price fell but little further even under the flood of exports in November and December. The accumulated stocks were easily disposed of, and by January 1929 a definite rise in price was beginning, which culminated in an average of just over is. for the month of March. Undoubtedly the general expectation that the shipments from Malaya would fall off as the supposed "flush-production" came to an end, had a good deal to do with this rapid rise, and when the March shipments showed no reduction, there was a relapse to an average of $10\frac{1}{2}d$. for April. With the seasonal decline in shipments during May and June owing to the effects of wintering, prices began to harden again, but with rapidly increasing shipments during July, August, and September, the downward movement was renewed. It was not, however, until October that the price averaged below 10d., and then the Wall Street crash carried it down to rather under 8d. Until the late autumn, therefore, the effects of the huge increase in Malayan production were more or less countered by the huge increase in world consumption, and though this fell short of world production by some 40,000 tons, that amount could comfortably be added to stocks, which had sunk to a relatively low level at the end of 1928. But so long as it was believed that the effects of the Wall Street crash would be confined to a comparatively brief "recession" of American industrial activity, especially where the automobile was concerned, producers could congratulate themselves on a comparatively easy escape from the embarrassments which this unexpected increase of productivity might have

created in the absence of such satisfactory developments on the demand side.

Early in the New Year, however, came the realisation that a genuine world-wide depression was daily gathering momentum, and producers recognised that their position was becoming serious, for any large excess of production could not now be comfortably added to stocks as had been possible in 1929. There was soon much talk of artificial measures of one kind or another. This eventually materialised into a scheme for a stoppage of tapping during the month of May by all British* and Dutch estates, pending some more permanent arrangement for restricting output. The response from estates was extremely good, but the Malayan small-holders and the Dutch natives of course continued production as usual. Even before this curtailment could have affected actual supplies, there was a sharp break in the price. By mid-June the realisation that the tapping holiday was a totally inadequate remedy, in face of the continued decline in the U.S. absorption and the general intensification of the world depression, carried the price to a 6d. level.

The May tapping holiday had, however, demonstrated the possibility of Dutch co-operation in restrictionist measures; what had been deemed an impossibility had materialised, and in some quarters definite hopes were entertained that adequate measures might yet be brought into operation. The tapping holiday had been arranged by a more or less unofficial body, known as the Anglo-Dutch Liaison Committee, and negotiations were continued until on June 24 a public statement as to its findings was issued by the R.G.A. The main points were as

follows:

I. No voluntary restriction scheme can be effective.

2. Without restriction, the industry is endangered.

3. The avoidance of distress requires Government intervention.

4. Regulation must include native production, must be based on 9d. per lb. as a pivotal price, and must be flexible.

5. Details must be agreed on in consultation with representatives of the industry.

6. Governments should *pro tem*. discourage extensions to the planted area.

7. No particular scheme has yet been considered.

The R.G.A. implied its approval of restriction in principle, but everything depended on

* Ceylon estates co-operated, though only after considerable pressure had been brought to bear, for the month of May is a heavy crop month in Ceylon, whereas the reverse is true of Malaya and Java owing to wintering.

the attitude of the Dutch producers. The crucial meeting was held early in July, and while a motion in favour of requesting Government intervention was carried, the results of the voting later showed producers of 25,995 tons against, and of only 38,905 tons in favour. Although the minority included 11,800 tons in American ownership, the existence of a relatively substantial Dutch opposition was definitely revealed. The market gave up all hopes of any positive result, and by mid-July the price had reach $5\frac{1}{2}d$. During August the decline in price was much slower, but at the beginning of September there was a further break from a little under 5d. to 4d., and again at the end of the month to $3\frac{9}{16}d$. The first of these breaks was occasioned by official statements following conversations between the Governor-General of the N.E.I. and the High Commissioner of the Malay States, to the effect that neither Government would interfere, and that economic factors must be allowed to run their course. The second break appears to have been due to the further troubles of Wall Street at the end of September, but fundamentally the whole course of prices during 1930 must be viewed in terms of the inability and/or unwillingness of merchants and speculators to carry additional stocks, their unwillingness varying of course with the current odds on any successful restriction movement. To complete this sketch of price movements up to the end of 1930, it is only necessary to say that towards the end of October a sharp recovery to a little under $4\frac{1}{2}d$. occurred, due initially to heavy buying by French consumers in anticipation of the imposition of an import duty. Contrary to most expectations, this level was more or less maintained for some time after the burst of French buying had died away; this was probably due to the inadequate deliveries to manufacturers outside the U.S.A. during the months of July and August. But with the New Year came fresh weakness.

For the purposes of the present study, it has not been thought necessary to deal with the history of the last two years in any great detail, except in reference to the fundamental changes which have appeared in the general situation on the supply side. Before this study is closed with a few observations as to the future outlook, some comment seems desirable on the issue of restriction in 1930. For practical purposes, restriction appears now a dead horse so far as the rubber industry is concerned, and most people to-day consider that horse not only dead but buried in a very deep grave. This may be true, but it is conceivable that the grave may not really be so deep, and minor

miracles still occur even in the twentieth century.* (See footnote.) In any case, to the student of artificial control the issue of restriction in 1930 suggests certain points of very considerable theoretical in-As in 1921, the rubber producing industry was faced with a temporary but acute decline in demand as the result of a world-wide trade depression. As in 1921, it cannot be said that there is to-day any serious excess of producing capacity, in comparison with what the demand would have been if there had been no world depression; this is on the assumption that the Dutch native rubber potential production can to-day be disregarded, on the ground that at prices under is, the 1929 rate of output will not be greatly exceeded at least for two or three years. The fundamental trouble in 1930 was a temporary decline in demand. capacity being more or less normal, and as I have argued elsewhere,† there is no theoretical economic objection to artificial control under such conditions. Now in actual fact, restriction by producers in British territory alone, was out of the question in 1930—here lies a difference as compared with 1922—and even with the co-operation of all estates in the N.E.I., it would still have been a somewhat dangerous proceeding, because of the existing and potential Dutch native production, any control of which is still virtually impossible, both on physical and political grounds. Suppose, however, that restriction could have been applied to the whole of the production of the Middle East; restriction versus laissez-faire in 1930 then becomes a most interesting theoretical problem.

† Economic Journal, September 1930.
† On the assumption of a pivotal price not lower than, say 9d. As pointed out in Section V, though a price level of 1s. is required under what may be termed normal conditions, 10d. might be an effective stimulant to the native under to-day's economic conditions.

^{*} Such a miracle is being attempted far sooner than the author dreamed! Only a few days after the manuscript of this memorandum was sent to the printer, Sir George Maxwell's proposals appeared, and the Anglo-Dutch Liaison Committee has now held another meeting. Whether these renewed negotiations will lead to any result, remains to be seen. The attitude of the low-cost Dutch producers may have altered as the result of a fourpenny price level, no signs of a recovery in demand, and no prospects as yet of any material reduction in the Dutch native output. On the other hand, all these developments were in sight last summer, though possibly a greater decline in the Dutch native output was then anticipated. The present negotiations may therefore only be a last desperate effort by those who have always been in favour of restriction, and who have recently been re-heartened by the official approval of restriction in the cases of tin and sugar, to hope that in its financial anxieties, the N.E.I. Government may now be more willing to risk the application of some restrictions on the output of native rubber. In what is, from the author's point of view, an awkward predicament, I have decided to allow the text to stand as it was originally written, since no real change has yet occurred in the economic features of the situation, and therefore I see no reason as yet to modify the tentative conclusions reached below: at the moment they seem to me to apply prospectively as much as retrospectively. (March 21st, 1931.)

Let us suppose that production had been restricted to 75 per cent.* of capacity until the price reached 9d., as the Anglo-Dutch Liaison Committee is said to have suggested. At such a price level the highest cost producers would just about cover their costs on such a restricted output, while the low cost producers would make quite fair profits. Provided that demand revived to normal within say two years, there seems little reason to find fault with such a scheme, at any rate from the point of view of the average and high cost producers. The low cost producers would, however, see certain advantages in laissez-faire, for above all things they desire to strengthen and increase their competitive supremacy over the native producer both in Malaya and the N.E.I. Under laissez-faire, the price might be expected to remain very low for a considerable period, since on the one hand the sub-normal level of demand will last in all probability for a year or eighteen months at the least, and on the other hand the high cost concerns will not close down without a struggle carried to the bitter end. The results would not however be confined to this killing off of the highest cost estates. The small-holders in Malaya would probably have tapped their trees to death in an endeavour to maintain their incomes, and at the end of, say, two years, they would largely cease to be the important source of supply which they now constitute.† In the N.E.I. the native production would tend to fall, but with the huge new plantings of the restriction period coming into bearing the natives would be able to abandon exhausted trees for new trees, while the more remote areas in bearing are already resting owing to the disappearance of their local market,‡ and there could be no "killing" of the native industry such as can and may take place in Malaya. Nevertheless the Dutch native's faith in rubber as a source of income would be greatly shaken. When the demand began to revive, there would thus have been a fairly drastic pruning of estate capacity and also of Malayan native capacity, and in due course the demand would almost certainly exceed the supply, and prices would rise to a level which would afford high profits to the surviving low cost estates, and would make new planting, especially with still more improved material than is available to-day, a most attractive proposition. The price might, indeed, rise for a time to a level which would attract the Dutch natives to

* To be effective within a reasonable period, a more drastic restriction would probably have been required. This conservative figure will, however, suffice for the present argument. † At any rate for a time, but a prolonged rest might restore

realise their potential output, though this might possibly be less than it is now if only because of the excessive tapping during the period of low prices. Even this, however, would result in little permanent damage to the low cost estates and the new plantations, for as the latter came into bearing, the price would fall and the native would be gradually forced out of production, the assumption being that he could not permanently compete with rubber at say 6d., which level would be reasonably profitable to the estates. Thus in the long run laissez-faire would appear to have certain advantages for the low cost producer over restriction. For under restriction there would be no pruning of capacity, and no serious blow would be struck at the native industry, which would remain a dominant factor in the

situation for perhaps another generaton.

The opposition of the low cost Dutch estates to restriction has been more or less openly declared on these grounds,* and it may be surmised that certain British interests take much the same line. From the consumers' point of view, restriction has little to commend it. It is true that the pruning of capacity which will take place under laissez-faire, if the revival of demand tarries, may result in a somewhat serious shortage of supplies when demand resumes its normal volume and upward trend. But prices cannot remain really high for more than a few months, because at is. or over the potential Dutch native supply will begin to become available, and this constitutes a very big protection from the consumers' point of view. Such a rise in price would, moreover, greatly stimulate new planting by estates, and in due course the normal price would fall lower than ever. Under restriction, the consumer would lose his present advantage of very cheap rubber, such as it is worth, and what is much more important from his point of view, new planting by estates, and therefore the ultimate lowering of marginal costs, would be postponed. On balance it seems reasonable to suppose that the consumer will gain more under laissez-faire by the earlier resumption of new planting than he would lose by the relatively high prices which may temporarily occur if the mortality amongst the high cost producers is on a large scale, and therefore that he would gain more under laissez-faire than under restriction because restriction necessarily involves a delay to new Hence, while there is no fundaplanting. mental theoretical or general objection. to restriction as a remedy for a temporary decline of demand, capacity being normal, there are special factors in the rubber situation of 1930 which suggest that on balance restriction would

the position.

‡ See Official Dutch Report on Native Rubber, 1930 (R.G.A. Bulletin, December 1930).

^{*} See the Financial Times, August 18, 1930.

not be in the interests of the consumer, nor in the ultimate interests of the producer.

This discussion has to some extent trespassed on our consideration of the future outlook for the industry, for laissez-faire is the actual order of the day.* It will therefore be convenient to start by considering the probable validity of the forecasts or hopes, which have been attributed to the low cost producers in explanation of their attitude last summer. the main their anticipations appear correct. The truly formidable nature of the world depression, and in particular the state of affairs in the U.S., are now even more apparent than six months ago, and any significant revival of demand until well on in 1931 seems most improbable. It is also becoming more certain that even another six months of present prices will see a substantial curtailment of estate output, and at least an appreciable pruning of actual capacity in Malaya if nowhere else. is also clear that the output of Dutch native rubber is being slightly reduced, while in all probability the Malayan small-holders are seriously over-tapping, and though their output may be maintained for many months yet, this will only be achieved at the expense of the future. Given a fairly drastic pruning of existing productive capacity, it also seems clear that when the world depression passes, there will be something at least approaching a shortage, for world depressions do pass, and rubber is certainly a commodity for which the demand is expanding and will continue to expand. Those producers who survive will without much doubt reap fortunes in a few years' time, for it will be necessary to draw substantially on the Dutch native potential supplies, and that means a wide margin of profit for all estates whose costs are in the region of 4d. to 5d. The really vital question is, what will happen then?

The ultimate interests of the consumer lie in the extension of the plantation system of production, and not with the native. This implies no prejudice against the native, or favour towards the interests of European shareholders. It is simply that the plantation industry offers a better chance of cheap rubber in the future, and that alone is in the long run the criterion by which the two systems must be judged. plantation system has already shown that it can produce rubber profitably at a price of not more than 9d., and in select cases much less; moreover, there seems no reason why the plantation system should not produce all the world requires at such a price. It is extremely doubtful, however, whether the native either in Malaya or the N.E.I., can continuously produce

* Or so it appeared when this was written.

rubber in the requisite quantity, still less of the requisite quality, at such a price. But though there may be some element of doubt on this matter in the present, there can be little doubt about the future. Rubber production is as yet only on the threshold of a veritable revolution in technique. To-day it is possible to plant material which can be relied upon to give yields of at least 800 lbs. an acre and upwards. This figure is roughly double the average estate yield to-day, but it almost certainly errs greatly on the low side so far as the future is concerned. The selection and propagation of strains for bud-grafting, and even the art of seed selection, is still in its infancy, and no one can foretell the potentialities of the planting material which may become available within even the next ten years. Similarly, further great strides will undoubtedly be made in the near future in respect of general cultivation, particularly manuring. If the native cannot compete with his extensive methods of cultivation to-day, he will certainly not be able to do so in the future, and such scientific cultivation is not for this generation of natives, either in Malaya or in the N.E.I., nor for the next. In the former territory, there is little more land available in the Malay reservations. and replanting as opposed to new planting will be necessary; apart from anything else this involves a cessation of the native's income for many years, and in general seems a most unlikely development. In the N.E.I., the native industry has a less gloomy future, for every year the native must clear more jungle for his rice crop, and in time he may learn to appreciate and utilise the discoveries of science. But the native mind does not readily grasp the technicalities of scientific cultivation, and it will need much exhortation from the Chinese dealers and shopkeepers to educate his ideas, while even the mere physical operation of bud-grafting is no child's play. Moreover, the available supply of the best bud-wood will for many years be inadequate to meet the demand of the plantation industry if any extensive new planting develops in the near future. Admittedly in time the native may follow where the European industry is leading the way, but he is at the moment at least ten years behind, and dropping further backwards every day, while if the advance of technique continues more and more rapidly as is likely, he may eventually give up the chase altogether.

But the future of the plantation industry depends not only on the progress made in productive technique, but on the speed with which that improved technique is translated into effective practice. Here lies the heart of the problem.

Even supposing the anticipations of the low cost producers are realised, the price cannot for long remain much over 1s., or say at the most between is. 3d. to is. 6d. Will such a pricelevel induce the European investor to provide the money for new planting? It will certainly enable the surviving estates to plant up their reserve land, and possibly to replant any estates purchased for a mere song during the slump. But replanting on a large scale is not very feasible in view of the necessary cessation of New planting will be necessary, and that really means opening up Pahang in Malaya, or some similar undeveloped territory in Sumatra or Borneo. In his present state of mind, the ordinary English investor is only beginning to realise the recent decline in costs of production; he still thinks of is. 3d. or is. 6d. as a barely profitable price level, and he has no comprehension of the possibilities of modern planting material. The first, and perhaps the most important, task before the leaders of the industry, especially in Great Britain, is to educate the investing public to the realisation of the present situation and the potentialities for the future, to drive home the fact that the normal long period price level has fallen for ever well below is., to emphasise that the objective of the next ten years should be to produce profitably at 7d. to 8d., and that new planting propositions which are based on expectation of yields enormously greater than the present average, and prices in the neighbourhood of 6d. and less, are sound and legitimate propositions and not mere fantasies. Without such an education of the investing public, it may well be doubted whether an adequate supply of capital will be forthcoming, except at prices which will strengthen the hold of the Dutch native industry to the ultimate detriment of the consumer and the European producer alike.

But even if new capital is thus made available in sufficient quantities, there is also a physical difficulty confronting the plantation industry, especially the British section, namely the possibility, in fact the probability, that the supply of first-class proved planting material will be insufficient, and therefore inordinately expensive. As has been said, the Dutch have the advantage of a long start here,* and with such a subject as the rubber tree, research work cannot be expected to bear much fruit for a period of ten or fifteen years. The Rubber Research Institute of Malaya was not estab-

lished until July 1925, and until 1929 it lacked any experimental plantation of its own. Proposals for its establishment were made in 1921, and as a result the Department of Agriculture was forbidden to undertake research connected with rubber, and such work as was in hand was summarily stopped. At the same time the slump began, and the industry was wholly occupied with restriction proposals. As a result of restriction and Government red tape combined, practically five whole years were wasted in discussion, a crime for which the Malayan Government must share responsibility even if the industry must carry most of the blame, and for which both will pay a heavy penalty. The record of Ceylon in the matter of research is better, but still leaves much to be desired, and the work has necessarily been on a small scale. There has, however, been a limited amount of experimental work by individual private interests, and within a year or two a small supply of Malayan produced bud-wood of some quality will be available. Unless the gods are kind, however, the supply of planting material will not be what it ought to be, either in quality or quantity, and, in any case, the Dutch will be in a better position than Malaya.*

In connection with this competitive aspect, Malaya must further reckon on the possibility that Sumatra despite higher labour costs, and even perhaps Dutch Borneo, will offer greater attractions to the planters of the future than Malaya. This is a very complicated and manysided issue, and it is not proposed to make any attempt to consider it in detail. But stress must be laid upon the possibility that the expansion of the future need not necessarily take place in Malaya, and it behoves the British Government to keep this possibility in mind. Equally a bare mention only will be made of the question of depreciation in the output of existing estates, as raised for example by Lt.-Colonel Kunhardt in "The Future of Rubber." We may agree with Colonel Kunhardt that there will be a shortage of rubber within a few vears, but of a rather different kind and for somewhat different reasons. If his ideas of depreciation are correct, the shortage may be somewhat intensified, but it must be remembered that we have postulated the destruction of an appreciable proportion of the existing capacity, and there seems little likelihood that the surviving average and low cost capacity will be greatly affected by depreciation in the near, whatever may be true of the distant, future. The truth is that we have as yet quite

^{*} Much misinformed criticism has been levelled at the Malayan planter, and it may be doubted whether Malaya is a whit behind the Dutch estates in their present technique. Malaya is, however, behind as regards the future, because it is approximately ten years behind the Dutch in the matter of budded rubber.

^{*} Malaya may, of course, import bud-wood as at present, but it is doubtful whether the available supply would be adequate for both countries if an extensive boom in planting began in the next ten years.

insufficient data to determine the age at which the output of rubber trees begins to decline, at any rate under modern conditions of estate cultivation and management. The odds are perhaps that the capacity which survives the next two years will maintain its productivity at least as long as it ought to be asked to do so, i.e. until the time comes for new and better capacity to be substituted in its place.

This brief disquisition on the outlook for the future is not intended to do more than draw attention to certain salient factors in the situation. Even what has been said may require modification before the printer has done his work, for the goddess of rubber delights in the unexpected, and finds sport in the discomfiture of her prophets. This study may appear to some as of a historical interest only, on the ground that never again will the rubber industry experiment with restriction or any other form of artificial control. If the writer shared this belief, he would probably have left his task to some one else, even though the interest of this study is not confined to the rubber industry.

But whatever the fate of every remark made above concerning the future, the writer feels some real confidence in prophesying a resurrection of artificial control, perhaps at no distant date.* Neither producers nor consumers can contemplate with equanimity an indefinite continuance of such instability as has characterised the rubber industry up to the present time, and further experiments will inevitably be made in conscious control before we can feel satisfied of the superiority of the unconscious control of laissez-faire. It is in the anticipation of such further experiments that the present study has been attempted, and while it seems to the writer to be of considerable interest from a general economic point of view, he hopes that it may be also of some small practical utility to the rubber industry itself in making its next experiment in this direction.

* As has been said in a previous footnote, the text has been left as it was originally written, but the resurrection of control which I had in mind was to be in two or three years' time, when the present depression passed away, and in the form of a permanent stabilisation scheme. I was not anticipating the revival of restriction as a remedy for the existing situation, in which form, as indicated above, I doubt its ultimate desirability, so long as the nature of the general economic situation remains unchanged. (March 21st, 1931.)

APPENDIX.

TABLE I.

WORLD PRODUCTION, CONSUMPTION AND STOCKS.
(000 Tons.)

	Net Exports.*	Estimated Absorption.*	Apparent Increase or Decrease in Stocks.	Recorded Change in Visible Stocks,†
1919	398 354 300 400 407 429 518 622 607 657 861 818	330 310 270 390 435 470 560 545 600 680 807 710	+ 68 + 44 + 30 + 10 - 28 - 42 - 42 + 77 + 7 - 23 + 54 + 108	+ 25 + 20 - 32 - 64 - 22 + 86 + 26 - 17 + 89 + 122

* As estimated by Rubber Growers' Association.

† See Statistics from Table III below.

Note.—For reasons which need not be detailed here, my personal opinion is that net exports are a better measure of current supplies than net imports. Therefore on this matter I side with the R.G.A. and against the American statisticians. Neither net exports nor net imports are, of course, anything more than an approximation to actual physical production, and if net imports are compared with absorption (instead of net exports as above), the agreement between the apparent and the recorded changes in stocks (cols. iii. and iv. above) is on the average neither better nor worse. As regards absorption, the U.S. Department of Commerce estimates differ from the R.G.A. estimates given above by 10–20,000 tons from 1919–23, but the difference then becomes insignificant.

TABLE II.

NET EXPORTS OF CRUDE RUBBER, 1910-1929. (Tons.)

(As estimated by Rubber Growers' Association.)

				PLA	NTATION.						WILD.		
Year.	British Malaya. (1)	Nether- lands East Indies. (2)	Ceylon.	India.	British North Borneo. (5)	Sara- wak. (6)	French Indo- China. (7)	Siam, etc. (8)	Total.	South America. (10)	Other Wild. (11)	Total. (12)	Grand Total.
1910 1911 1912 1913 1914 1915 1916 1917 1918 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930	6,500 10,800 20,300 33,600 47,000 96,000 129,000 112,000 204,000 151,000 214,000 210,000 286,000 242,000 299,000 455,500	2,400 2,300 3,700 6,400 10,400 20,000 33,100 44,000 85,000 80,000 71,000 149,000 149,000 19,000 204,000 229,000 229,000 255,500 241,000	1,600 3,200 6,700 11,400 15,800 20,800 24,400 31,900 21,100 44,800 39,000 40,200 47,400 37,100 37,400 45,700 58,800 55,400 80,300 75,600	200 400 700 1,000 1,300 2,200 2,800 4,000 6,600 6,400 7,700 10,100 9,900 11,300 10,800	100 200 500 600 1,200 2,400 2,600 3,900 4,100 3,200 4,600 5,400 5,800 6,600 7,000 7,100	10 30 100 150 300 600 1,000 2,200 2,200 2,100 3,800 6,700 9,000 11,000 11,000 11,300	180 200 250 200 400 600 500 3,100 3,600 4,500 6,500 6,500 6,740 8,000 9,000 9,000 7,600	10 70 150 150 200 300 400 300 600 800 800 800 2,400 2,400 4,000 4,000 4,000 4,300	11,000 17,100 32,100 53,400 75,700 115,600 160,100 214,300 184,400 350,000 377,200 373,700 377,700 377,700 479,500 585,900 567,300 628,800 835,500 799,400	44,000 43,000 49,000 49,000 38,000 38,000 41,000 27,000 39,000 19,000 23,000 22,000 24,000 28,000 25,000 29,000 21,100 21,100 14,300	39,000 33,000 31,000 22,000 8,000 11,000 12,000 10,000 9,000 7,000 4,000 7,000 11,000 11,000 11,000 4,900 4,200	83,000 76,000 80,000 65,000 46,000 50,000 53,000 37,000 23,000 26,000 31,000 36,000 40,000 28,000 18,400	94,000 93,100 112,100 118,400 121,700 166,600 210,100 221,400 398,000 353,600 300,200 406,900 428,700 607,300 607,300 861,500 817,800

Note.—Most of the figures in this table have been obtained from official sources. The exports of Plantation Rubber have been adjusted to allow for moisture, etc., in native rubber and for rubber smuggled out of Malaya during the period of regulation of exports.

TABLE III.

WORLD ABSORPTION OF CRUDE RUBBER BY MANUFACTURERS.

(As estimated by Rubber Growers' Association.)

(000 tons.)

-		U.S.A.	U.K.	Other Countries.	Total.
	1919 1920 1921 1922 1923 1924 1925 1926 1926 1927 1928 1929 1930	225 215 170 285 305 335 390 365 375 440 470 380	35 24 18 10 27 22 30 40 45 49 72	70 71 82 95 103 113 140 140 180 191 265 255	330 310 270 390 435 470 560 545 600 680 807 710
		1			

Sources .- United States: Data published by Rubber Manufacturers' Association of America.

United Kingdom: Net imports adjusted for variations in stocks in London and Liverpool.

Other countries: Net imports.

TABLE IV. WORLD'S VISIBLE STOCKS. (000 tons.)

			In Produ	cing Count	ries.			I	n Consumir	ng Countries	s.	
		Singapore and Penang Ports.	Ceylon and India.	Dutch East Indies.	Para.	Total.	Afloat.	United States.	United Kingdom.	Amsterdam and Antwerp.	Total.	Grand Total.
End of 1920 1921 1922 1923 1924 1925 1926 1927	March June Sept. Dec. March March March March March March March	1. ————————————————————————————————————	H. ————————————————————————————————————	III. — — — — 100 100 7 5 5 3 5 5 7 7 7 7 6 6 6 5 5 5 5 5 5 5	IV	35 40 55 35 46 42 38 35 34 27 27 22 32 32 41 35 38 38 38 38 38 38 38 38 38 38 38 38 38	V. 37 32 458 452 452 452 452 500 42 544 550 569 74 772 62 600	VI. 98 100 95 87 106 90 777 73 68 52 58 57 50 35 51 62 62 72 75 80 86 99 102	VII. 56 80 81 79 64 68 75 70 65 54 36 23 7 7 16 28 42 59 70 71 72 66 60	VIII. 5.7 1.0 1.2 1.1 1.2 0.3 0.1 0.2 0.3 0.2 0.2 0.3 1.1 1.5 1.0 1.0	160 185 177 167 171 159 155 144 134 107 94 80 57 91 105 132 147 153 159 166 163	232 257 277 250 269 244 245 229 210 192 181 157 139 132 159 183 295 266 260 259 271 255
1929 1930	June Sept. Dec. March June Sept. Dec. March June Sept. Dec. March June Sept. Dec.	18 15 34 29 32 32 33 45 41 43 45	4·0 4·0 5·0 4·0 6·0 6·0 5·0 6·0	555444455555	2.0 3.0 4.0 4.0 3.0 3.0 3.0	29 27 47 41 44 45 46 59 54 56 59	56 66 118 98 84 88 96 96 80 95 81	85 59 65 97 96 91 122 147 155 171 202	41 34 23 32 36 55 77 91 110 120	1.0 2.0 1.0 1.0 2.0 2.0 2.0 2.0 2.0	127 95 89 130 133 148 201 240 267 293 325	212 188 254 269 261 281 343 395 401 444 465

Notes on the above Table of World Stocks.

The total stocks in producing countries at the end of 1920, 1921, and 1922 have been estimated from such data and estimates as are available. The possible error must be put at not less than 10,000 tons.

as are available. The possible error must be put at not less than 10,000 tons.

Cols. I.—IV.—From Dec. 1923 figures from Rubber Quarterly.

Col. V.—Rickinson's estimates to Dec. 1926; subsequently estimates by U.S. Dept. of Commerce. These latter are more accurate for Afloat to U.S.A., and therefore probably for the total afloat.

Col. VI.—Figures by U.S. Dept. of Commerce.

Col. VII.—Figures from Rubber Quarterly which includes an estimate of stocks in private warehouses from 1923 to June 1927, after which returns become complete for London and Liverpool. The true totals in 1920, 1921 and 1922 were certainly higher, probably by 10,000 tons in 1920, and by 15,000–20,000 tons in 1921 and 1922.

Col. VIII.—Figures from Rubber Quarterly.

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AVERAGE QUARTERLY PRICE, AND PERCENTAGES EXPORTABLE AT THE MINIMUM RATE OF DUTY UNDER THE RESTRICTION SCHEME AND AVERAGE PRICE FOR SIMILAR QUARTERS SUBSEQUENTLY.

(Cmd. 3086. Tables relating to Rubber Industry.)

Restric- tion Quarter No.	Period.	Pivotal Price.	Average Price.	Percentage Exportable.
1 2 3 4	NovJan. 1922-3 FebApril 1923 May-July 1923 AugOct. 1923	s. d. 1 3 1 3 1 3 1 3	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	60 60 65 60
5 6 7 8	NovJan. 1923-4 FebApril 1924 May-July 1924 AugOct. 1924	1 3 1 3 1 3	1 2·175 1 0·917 10·974 1 2·632	60 60 60 55
9	NovJan. 1924-5	1 3	1 5.998	50
10	FebApril 1925	1 3	1 7.356	55
11	May-July 1925	1 3	3 2.469	65
12	AugOct. 1925	1 3	3 7.269	75
13	NovJan. 1925-6	1 3	3 10·709	85
14	FebApril 1926	1 3	2 4·013	100
15	May-July 1926	1 9	1 9·0017	100
16	AugOct. 1926	1 9	1 8·199	100
17	NovJan. 1926-7	1 9	1 7·265	80
18	FebApril 1927	1 9	1 7·696	70
19	May-July 1927	1 9	1 6·165	60
20	AugOct. 1927	1 9	1 4·620	60
21	NovJan. 1927-8	1 9	1 7.023	60
22	FebApril 1928	1 9	1 0.591	60
23	May-July 1928	1 9	9.154	60
24	AugOct. 1928	1 9	8.874	60

FOR SIMILAR SUBSEQUENT QUARTERS. (From the Rubber Quarterly.)

Period.	Average Price.
NovJan. 1928-9 FebApril 1929 May-July 1929 AugOct. 1929 NovJan. 1929-30 FebApril 1930 May-July 1930 AugOct. 1930 NovJan. 1930-1	7·853 7·629

TABLE VI.

"STANDARD PRODUCTION" IN BRITISH MALAYA AND CEYLON FOR RESTRICTION YEARS.

(From Cmd. 3806.)

(Tons.)

Year. Nov. 1-Oct. 31.	Malaya.	Ceylon.
1922-23	274,000	60,034
1923-24	246,900	62,282
1924-25	276,793	65,807
1925-26	314,853	70,475
1926-27	333,840	73,839
1927-28	314,085	76,300

CARRY-OVER OF UNEXPIRED EXPORT RIGHTS IN MALAYAN RESTRICTION AREA AT END OF EACH QUARTER OF THE LAST TWO RESTRICTION YEARS. (Tons.)

(From Reports of Malayan Rubber Controller.)

TABLE VIII.

PRODUCTION OF RUBBER IN THE NETHERLANDS EAST INDIES. (000 tons.)

(As estimated by R.G.A. to 1928. Messrs. Harrisons & Crosfield since.)

		Estate I	Rubber.	Native Rubber.	Total.
Ministration of the last of th	-	British.	Other.	Dry weight.	
	1922	A. B.	50	C. 17	94
and the second s	1923 1924 1925 1926 1927 1928	20 3 21 3 25 4 36 4 33 4 42 5	59 69 75 80 90 93	35 56 85 80 100 89	117 149 189 200 227 229
	1929	55	96	108	259
	1930 (forecast)	1	50	90	240

A. Estates which have agreed to regulate their exports according to the Stevenson scheme.

B. Estates which have not agreed to regulate their output

B. Estates which have not agreed to regulate their output according to the Stevenson scheme; most of the estates have adopted a similar form of restriction.
C. No deduction has been made for rubber smuggled from

Malaya to N.E.I. territory and then exported.

TABLE IX.

RELATIVE ABSORPTION OF CRUDE AND RECLAIMED RUBBER IN THE U.S.A.

(From Statistics published by U.S. Dept. of Commerce.)

	Absorption of re- claimed rubber.	Ratio of reclaimed absorption to crude absorption.* Per cent.
1917	89	56-7
1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1928 1930 estimated.	74 75 41 54 70 76 137 164 190 223 213	32·7 35·0 24·3 19·1 22·8 22·7 35·2 45·1 50·5 50·7 45·3 42·1

^{*} For statistics of Absorption of Crude Rubber in U.S.A., see Table III.

TABLE X.

ESTIMATED BRITISH AND NON-BRITISH EXPORTS OF CRUDE RUBBER, 1922-1930

(By courtesy of Messrs. Harrisons & Crosfield, Ltd.)

(Thousand tons).

77			British control in Foreign Countries. Total British.				ish Control.	Total.		
Year.	Quantity tons.	Per cent. of Total.	Quantity tons.	Per cent. of Total.	Quantity tons.	Per cent. of Total.	Quantity tons.	Per cent. of Total.	Quantity tons.	Per cent. of Total.
1922 1923 1924 1925 1926 1927 1928 1929 1930	274 255 241 282 373 343 388 567 548	68·5 62·8 56·2 56·4 60·0 56·5 59·1 65·8 67·0	27 23 24 29 42 40 49 55 54	6·7 5·6 5·7 5·6 6·7 6·6 7·4 6·4 6·6	301 278 265 311 415 383 437 622 602	75·2 68·5 61·8 60·1 66·7 63·1 66·5 72·2 73·6	99 128 164 207 207 224 220 239 216	24·8 31·5 38·2 39·9 33·3 36·9 33·5 27·8 26·4	400 406 429 518 622 607 657 861 818	100·0 100·0 100·0 100·0 100·0 100·0 100·0 100·0

TABLE XI.

ESTIMATED AREA UNDER RUBBER AT 31st DECEMBER, 1929.

(As estimated by Dr. G. Rae, R.G.A. Bulletin, Feb. 1931.)

(Thousands of Acres.)

	Year of planting.								
	Up to 1922.	1923.	1924.	1925.	1926.	1927.	1928.	1929.	Total.
Malaya Ceylon N.E.I. Estate India British North Borneo Sarawak French Indo-China Siam Others	2,329 480 850 126 60 60 95 60	45 4 27 2 2 5 2 5	47 5 44 1 4 10 3 5	54 11 55 3 6 15 15	102 20 81 7 9 20 25 25	98 13 109 13 9 20 30 20	69 7 117 15 6 15 20 10	46 3 70 4 4 5 10 5 6	2,790 543 1,353 171 100 150 200 140 60
Total (excluding N.E.I. Native)	4,075	92	119	169	299	327	273	153	5,507
N.E.I. Native $\begin{cases} (a) \\ (b) \end{cases}$	300 450		75 100	225 300	225 350	150 250	75 150	25 50	1,075 1,650
Grand Total $\{ egin{array}{ll} (a) & \dots & \dots \\ (b) & \dots & \dots \end{array} $	4,375 4,525	92 92	194 219	394 469	524 649	477 . 577 •	348 423	178 203	6,582 7,157

⁽a) Tayler & Stephens, 1929.

⁽b) Whitford, 1929.

TABLE [XII.

ESTIMATED WORLD PRODUCTION OF RUBBER, 1929–1930.

(As estimated by Dr. G. Rae.)
(Tons.)

		Estate.					
Country.		Euro- pean.	Asia- tic.	Total.	Native.	Total.	
Malaya	1930	192,500	44,500	237,000	198,500 197,000	434,000	
Ceylon	1929 1930	48,000 48,000	12,000	60,000	15,000	75,000	
N.E.I	<i>1929</i> 1930	148,000 149,000		152,000		245,000	
India	1929 1930	8,000 8,000		8,000	3,000	11,000	
B. N. Borneo		4,800 4,500		4,800			
Sarawak	1929 1930	1,200		1,200	10,000 8,800	10,000	
F. Indo-China	1929 1930	8,700 7,600		8,700 7,600) —	8,700 7,600	
Other countries	1929 1930	600		600			
Total Plantation	1929 1930	414,400 411,400	64,000	478,400 470,90	342,900 0 323,200	821,300 794,100	
Wild	1929 1930	-	_			26,000 18,400	
Grand Total	1929 1930	_			-	847,300 812,500	
. 1	1	1	T.	l .	1	1	

TABLE XIII.

ESTIMATED MONTHLY OUTPUT OF MALAYAN RUBBER, 1929 AND 1930. (Thousand tons.)

(By courtesy of Messrs. Harrisons & Crosfield, Ltd.)

	Estate.		Nati	ve.	Total.	
	1929.	1930.	1929.	1930.	1929.	1930.
Jan Feb March April May June July Sept Oct Nov Dec	21·5 21·6 19·6 22·2 20·0 24·4	22·8 18·6 18·2 19·0 3·7 20·3 22·7 23·8 22·2 21·5 21·7 22·3	18·5 13·5 14·5 15·0 15·4 16·3 17·9 18·0 15·8 18·0 16·4 19·2	19·1 17·6 14·5 15·5 15·5 15·8 18·2 17·4 15·9 16·1 197·0	41·2 30·1 32·0 33·2 34·8 36·8 39·4 39·6 35·4 40·2 36·4 43·6	41.9 36.2 32.7 34.5 19.2 36.1 40.9 41.2 38.1 37.0 37.6 38.3

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ISSUED BY ARRANGEMENT WITH THE LONDON AND CAMBRIDGE ECONOMIC SERVICE

MEMORANDUM No. 30

REPORT ON CURRENT ECONOMIC CONDITIONS

April, 1931

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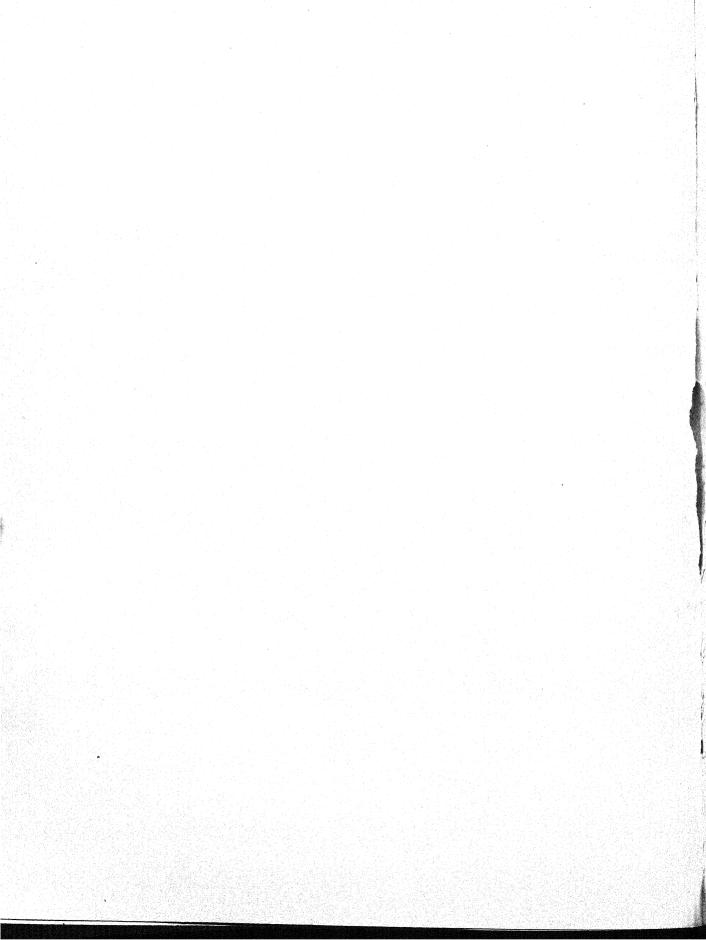
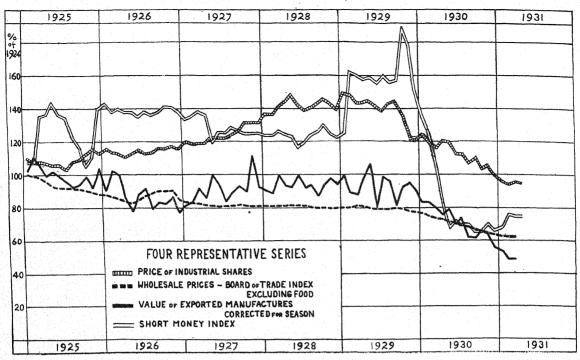
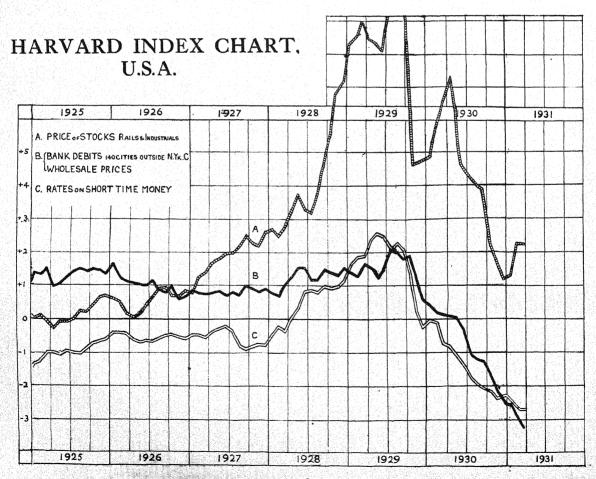


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INDEX CHART, U.K.





THE GENERAL BUSINESS POSITION.

UNITED KINGDOM.

April 20th, 1931.

Wholesale prices of commodities have, as a whole, been nearly stationary for two or three months. The index numbers of security prices and the short money rate have only shown slight fluctuations. Unemployment, though increased in the coal, iron and steel, engineering and shipbuilding industries, has diminished in textile manufacture, and in trades affected by the season. The importation of raw materials in March has not fallen below the low level of the two previous months. There is thus a considerable amount of evidence that the depression has reached, but not passed, its worst phase for the present; but in view of the absence of definite resilience in the United States and the continued lack of equilibrium in important markets, we can feel no certainty that there will not be a further set-back.

Meanwhile the volume of production has been greatly curtailed in the first quarter of this year, and, judging by the statistics of imports of materials, will not quickly recover. The heavy industries and, especially, shipbuilding are badly affected. Exports of manufactures, however, were no lower in March than in February, when allowance is made for the length of the month. Also production for the home market appears to have been maintained, and retail sales (so far as is known) were as great in volume in February, 1931, as a year earlier.

UNITED STATES. HARVARD FORECAST. {By Cable.}

April 17th, 1931.

Business activity is experiencing some measure of usual spring acceleration. For construction and manufacture and some other important activities the gain during the first quarter has been greater than customary, though for business in the aggregate it has been less. Improvement in specific lines reflects the increased demand for goods on the one hand and such

favoring conditions as extreme money ease and low material costs on the other. Contrasted with the movement of a year ago, present recovery has thus far been less widespread, but the fact that gains have started from far lower levels gives reason for thinking they will prove more lasting. We anticipate that they will continue and spread and that the upturn of general business is in early prospect.

UNITED STATES

(Harvard Economic Society).

FINANCIAL AND BUSINESS CONDITIONS. (Extracts from letter of April 4th, 1931.)

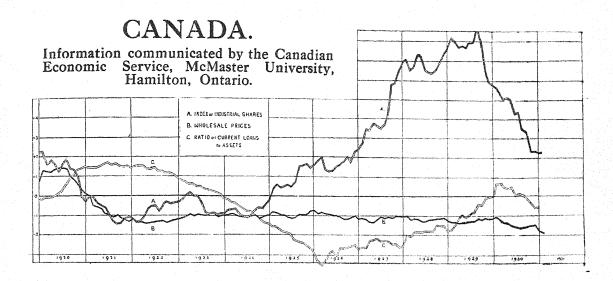
during most of March, declining sharply in the closing days of the month. For industrial stocks, the average for the month was higher than in February, which had opened with prices at a distinctly lower level. For rails, on the other hand, there was a considerable decline; and this downward movement was sufficient to produce a slight drop in the speculation curve (A) of the monthly index chart, which is based on the averages of these two classes of stocks.

The slight decline of the speculation curve last month does not alter the significance, as regards the outlook for business revival, of the considerable advance of the two preceding months. Upward movements of speculation are seldom continuous at this stage in the business cycle, advances being frequently broken by just such declines. The chief reason for the reaction in stocks was probably the announcement of important dividend reductions. These reductions reflect conservative policies in a period of low earnings, and throw little light on the future course of business, for experience shows that the lowest level of dividend payments frequently occurs after business has reached bottom.

The significant characteristics of the index chart therefore remain as heretofore: a definite rise has occurred in the speculation curve (A) above the level of last December, at a time when the business curve (B) and the money curve (C) are both at depression levels. As pointed out in our *Letter* of February 28, it is just this relationship of the curves which in the past has preceded, by a short but somewhat variable interval, a cyclical upturn of business. On the basis of this interval, measured in accordance with those depressions which most closely resemble the

present, the rise of the speculation curve above the December minimum indicates the beginning of an upward movement of business (Curve B) some time from February to July. It now seems probable that our business curve will register another decline in March, but significant improvement has occurred—full allowance being made for seasonal movements—in important fields of business, such as manufacture and construction, while some aspects of the price situation are encouraging.

Money Conditions and the Bond Market.—One effect of present very easy money conditions is that municipal and corporate bond issues were in good volume for the first quarter of the year despite the adverse influence of the early proposals for veterans' relief. With March data still somewhat incomplete, the total for the quarter appears to be only 10 per cent. less than for the first quarter of 1930 —when bond flotations were stimulated by the sudden change from money stringency to money ease-and about 15 per cent. greater than in 1929, when conditions were stringent. Issues, moreover, have been predominantly of the kind that leads to construction and hence stimulates business. Flotations by states and municipalities, and by railroad, public utility, and industrial corporations have contributed to the total; while early in the year there were some large foreign issues, chiefly Canadian. Meanwhile the prices of corporation bonds, though they declined at the end of January, have most of the time fluctuated not far below the January maxima. This comparative firmness, as pointed out last month, has been due to the large volume of funds seeking investment. Government bonds were severely affected by the developments late in January, but have subsequently fluctuated above the lowest prices of February.



USINESS during March showed no definite trend. Wholesale prices continued to fall, the decline during the month amounting to 2 per cent. This was, however, almost entirely seasonal and was without significance. The ratio of current loans to total assets continued to fall, thus following the general trend of this index during the downward phase of the cycle. Stock exchange prices followed an erratic course. After a sharp rise during the first three weeks of the month they turned as sharply downwards, and finished the month slightly lower than at the beginning. All classes of stocks shared in the decline, and in only one case, that of mining shares, did any class finish the month at a higher level. The inference seems fairly clear that the little "spurt up" in the middle of the month had very little behind it.

Except for the obvious fact that the bottom of the deflation has been reached, and that has been apparent since last November, there is little to indicate that any sustained recovery in business is in sight, and the hopes of a couple of months

ago are beginning to be somewhat dimmed. We are learning that the terrific spree we were on for the past few years is going to be paid for to the uttermost farthing, and this realisation, unpleasant though it may be, is hardly surprising.

The index numbers of wholesale prices used in this service showed a further decline of 2% during March, standing at 133.4, as compared with 136.1 at the end of February. This compares with 162.8 for March, 1930; 179.5 for March, 1926; 264.0 for March, 1920; and 116.3 for March, 1914. The figure for the month was the lowest recorded for any month during the last 16 years.

There are still no definite signs of any rally in prices, although the movement in March is seasonal and of no significance. The prediction so often made in this Service, that wholesale prices must continue to fall, need not be repeated. Gradually retail prices are falling and the cost of living getting into line with altered conditions.

RECENT MOVEMENTS OF SUBSIDIARY SERIES.

UNITED KINGDOM.

INANCE.—There has been a slight downward movement of the Indexnumber of securities since the end of March. The sensitive index, however, shows a downward tendency. The fixed interest securities index shows a hesitating rise.

The short money index after rising at the end of the quarter to 77 or more has returned to 75.

Bank Town Clearings were unusually low in March, 30% lower than in March, 1930. Country Clearings fell less, and Provincial Clearings were nearly the same in March as in February. The fall of 18% in the twelve months is not surprising in view of the fall in commodity prices.

There was an increase in Bank Advances in March—the first increase for twelve months—but it only corresponds with the normal change at the time of year.

New Capital Issues, for the United Kingdom and for Overseas were unusually small.

The Bank return for April 16 showed that over £2 Mn. had been set aside during the week and nearly £1 Mn. has been similarly treated since. At this time of the year gold is usually earmarked for the covering of Argentine crop movements, but the amounts are unusually large, especially when considered in relation to

GOLD MOVEMENTS TO AND FROM THE BANK OF ENGLAND. £000.

	1927	1928	1929	1930	1931
January February March April May June July August Sept'mber October November December	- 16 - 1180 + 401 + 2211 - 1545 - 1140 + 699 - 586 - 770 + 671 - 1212 + 1252	+ 3945 + 21 - 149 + 2403 + 2320 + 8466 + 2106 + 1244 - 4762 - 5233 - 5088 - 6594	- 197 - 1424 + 1680 + 4660 + 5021 - 7085 - 14347 - 6617 - 5615 + 1346 + 2315 + 12035	+3953 +1071 +4794 +7126 -6628 + 73 -4438 +2458 -548 +4770 -5020 -8004	-7549 + 622 + 2766 +1826*
	<u> </u>	- 1321	- 8228	— 393	<u>-2336</u>

* To April 21st.

the lower level of agricultural prices. This amount has been largely counterbalanced by purchases of Cape gold, so that the net outflow for the week was £821,000, giving a gold holding of £146 Mn., as compared with £161 Mn. at this time last year.

PRICES AND WAGES.—The Board of Trade Index of Wholesale Prices of Materials, which fell very little from January to February, was stationary from February to March. This is the first month in which no decrease has been recorded since September, 1929. Statist index for materials equally indicates a check to the fall, and is higher at the end of March than two months earlier. In fact, some prices continued to fall till the end of March, while others were rising; but in no important case has there been any great movement in recent weeks, and the reports for the first two or three weeks of April continue to be stationary.

There has been more variation in detail in the prices of commodities classed as food, but (apart from seasonal changes) the general movement since January has been very slight.

The retail food index-number has fallen during the first quarter of the year only in accordance with the usual seasonal movement. The other items included in the Cost of Living Index are stationary except for a fall of 2½% in the prices of clothing early in the year.

Wage-rates continue unchanged in general; but recent changes in the building and woollen trades, on railways, and in the South-Wales coalfield, all of small amount, have brought the index down to 97—a fall of 3% in three years.

TRADE AND OUTPUT.—Imports of materials improved a little in March, and (allowance made for the season) were approximately at the same level as in January. The fall since last year, however, is much greater than is accountable to prices.

NET IMPORTS OF MATERIALS (excluding Rubber).

			,	arue &	11.E LL.					
	192	29			1930		1	1931		
	Jan.	Feb.	Mar.		Feb.	Mar.				
Cotton	11.6	6.1	7.4	7.3			2.9	1.8	2.6	
Wool	5.5	4.7	3.8	4.4	3.5	4.9	3.4	2.3		
Others	15.7	9.7	10.5	13.8	10.4	11.4	8.7	6.1	6.9	
	-	-	-						-	
Total	32.8	20.5	21.7	25.5	18.8	20:1	15.0	10.2	12.6	

QUANTITIES RETAINED. October to March.

Octobei	to march.		
	1928-9	1929-30	1930-1
Cotton, Mn. lbs	1,032	886	700
Wool, Mn. lbs	227	279	307

Exports of manufactures were in value 10% lower than in January, 1931, and the apparent improvement over February is very nearly the amount to be attributed to the greater number of working-days. The fall since January is quite general. It is accentuated in comparison with 1930 and 1929 by the absence of the exceptional sale of large ships in March this year.

EXPORTS OF MANUFACTURES. £ MN.

		1929	100		1930			1931	
	Jan.	Feb.	Mar.	Jan.	Feb.	Mar.	Jan.	Feb.	Mar.
Iron, Steel and									
Manufactures	6.4	5.6	5.3	5.5	4.7	5.2	2.9	2.4	2.8
Electrical	1.0	1.0	-9	1.5	1.1	1.0	.8	.7	
Machinery	5.1	4.1	4.2	4.5	4.3	4.2		2.7	2.9
Vehicles				3.1	3.1	4.8	3.1	2.4	2.8
Cotton	13.8	11.8	12.0	10.9	10.0	9.4	5.5		4.9
Wool	5.6	4.8	4.4	4.5	4.2	3.5	2.8	2.5	2.1
Others	17.0	14.3	15.6	15.0	13.8	14.4	10.3	8.5	9.3
								-	
	53.8	44.3	47.0	44.7	41.5	42.5	28.7	24.0	25.6

The output of coal continued to be below normal, half the reduction since last year being due to lessened exports.

		COAL.			
	First	quarter of	the year.		
		1929	19	30	1931
Output, Tons,	Mn.	68.1	7	01	59.4
Export		13.1	1	50	10.4
Bunker Coal		3.9		39	3.5

The output of pig-iron continued at about its recent low level, while that of steel fell considerably.

The shipping tonnage commenced last quarter was very abnormally low.

Tonnage of ships leaving British ports with cargo in March was 13% less than in March, 1930; allowing for seasonal influences the diminution has been continuous since last August. Time-charter rates have fallen considerably during the past six months.

Unemployment.—The total number of the unemployed normally decreases from January to May, but in past years there has been little uniformity either in the amount or dates of decrease. This year, excluding coal, the number of insured males unemployed increased by 14,000 from January to February but decreased by 42,000 from February to March. This decrease is comparable with the average in former years. Owing to the occurrence of Easter we cannot use more recent figures.

From February to March unemployment increased in the coal-mining, iron and steel production, engineering and shipbuilding, but decreased in the cotton and woollen industries, and there was also a seasonal improvement in the clothing and building trades.

NUMBER OF INSURED PERSONS UNEMPLOYED. MALES AND FEMALES. 000's.

		March 23rd. Wholly Temporar				
Coal 171 Building & Construction 261	69 13	 176 236	117 11			
Iron, steel, engineering, shipbuilding 295 Vehicles 43 Cotton 143 Wool 33 Clothing (inc. Boots) 60 Others 1068	135 18 91 39 34 225	310 45 139 32 53 1062	138 16 67 33 26 205			
Total 2074	624	2053	613			

It is clear from this table that there has been no general improvement.

FINANCE, TRADE AND PRODUCTION IN THE UNITED KINGDOM IN THE FIRST QUARTER OF 1931.

FINANCE.—The severity of the depression in the region of finance is evidenced by the considerable reduction in Bank Clearings—12% in Town and 10% in Country Clearings when the

first quarters of 1930 and 1931 are compared—and in a fall of 22% (in twelve months to April 16th) in the index of the prices of securities. New Capital issues in this first quarter were little more than

a fifth of the amount in the first quarter of 1930. Bankers' Advances have also fallen, but only 6% in the year, and some allowance should be made for the reduction of prices.

Discount rates stiffened a little during the past three months, owing to the effort of the Bank of England to check the outflow of gold, but at the end of the quarter the short-money index remained lower than a year before. Gold movements are shown on p. 6.

PRICES AND WAGES.—Though there has been a good deal of unsettlement in the prices of particular commodities, the general index-numbers of prices of materials have moved very little since the end of last year. Wholesale food prices have oscillated slightly downwards. The fall that began in October, 1929, has, for the moment at least, been checked. This fall, according to the Board of Trade general index, has been 22% from October, 1929, to March, 1931, and 15% from March, 1930, to March, 1931.

Retail food prices fell 10% in the year ended April 1st, 1931, while wholesale food prices fell about 14% in the same period. The Cost of Living index, however, was reduced only 7%, owing to the stationariness of rent and the slightness of the fall in clothing prices.

Though there have been reductions of wage rates in some important industries, none of them has been large, and in the great majority of industries there has been no change. The fall of average wage rates since October, 1929, cannot have exceeded some 2%. The Ministry of Labour's reports show a reduction of only £212,000 in the weekly wage bill of all occupations included from January, 1930, to March, 1931. The national weekly wage bill was about £30 Mn. in 1924.

TRADE AND PRODUCTION.—The value of Imports retained in the first quarter of 1931 was 26% less than a year before, while that of British Exports was 36% less.

Among Imports the fall was greatest in cotton but extended to all classes of materials (see Table A, p. 10). Only about half the fall in value of imported materials can be attributed to reduced prices.

The value of imported food, drink, and tobacco fell 20%, which at first sight suggests also a reduction in quantity; but in fact there is evidence, when a longer period is taken, that the supplies of food are not checked.

Imports of wholly manufactured goods fell about 22% in value; there is no accurate means of eliminating the effect of change of price in this class.

The reduction of exports of manufactures has been very great and has extended to all the main categories of goods. The general falling-off of the export trade has been on a sufficient scale to account for the greater part, but not all, of the increase in the number unemployed.

The statistics of production and transport, so far as they are available, all show a great falling-off, worsening with each quarter since the year 1930. The index of production (see p. 14) is seriously reduced over the year in every category included, except in the food and tobacco group and in oil-seed crushing.

UNEMPLOYMENT.—The following table summarises the change over twelve months.

INSURED PERSONS UNEMPLOYED.

March, 1930. | March, 1931.

Male and Female.

		0	00's	000)'s
	v	Vholly.	Tempor- arily.	Wholly.	Tempor- arily.
Coal Mining		112	44	176	117
Metal Manufacture		36	40	68	69
Shipbuilding		52	3	101	7
Engineering		69	28	141	62
Vehicles		23	8	44	16
Textiles		132	182	264	175
Clothing	•••	34	20	53	26
Food, &c		54	8	73	9
Building, &c	•••	169	9	236	11
Other Manufactures	•••	161	50	280	96
Other Occupations		442	18	617	25
Total	•••	1284	410	2053	613
All Males	•••	1015	252	1583	445
All Females	•••	269	158	470	168

SUMMARY OF QUARTERLY STATISTICS.

TOTALS,*		1928		-	19	29			19	30		1931
TOTALS,	2nd Qr.	3rd Qr.	4th Qr.	lst Qr.	2nd Qr.	3rd Qr.	4th Qr.	lst Qr.	2nd Qr.	3rd Qr.	4th Qr.	1st Qr.
BANK CLEARINGS:	£Mn.	£ Mn.	£Mn.	£Mn.	£ Mn.	£ Mn.	£ Mn.	£ Mn.				
Town (ex Metropolitan)	10080	9371	10003	10316	9514	9941	10165	10292	9782	9529	9180	9079
Country	757	736	776	764	769	757	790	771	742	720	730	697
Provincial (11 Towns)	414	391	420	427	387	386	399	385	333	311	319	319
BANKERS' ADVANCES:	074	670	240									
Average for Quarter	934	932	942	968	980	979	971	973	962	938	920	913
NEW CAPITAL ISSUES in Gt.	l	1				2.5						
Britain:	99.3	66.6	93.3			20.4						
All	61.8	37.2		114.2	81.2	28.4	29.7	69·5	72.4	28.0	66.3	15.1
For United Kingdom	01.8	31.2	64.7	69.0	55.1	17.5	17.8	36.3	37.4	19.0	34.7	7.1
IMPORTS RETAINED:	122	122	135	105	100	100	170		400			
Food, Drink and Tobacco	122	122	100	125	120	126	139	114	108	107	123	93
Materials:	12	11	12	11	17	12	14		10			
Partly Manufactured	20	12	26	25	13 15	9	24	11 16	10	9 5	9 12	8 7
Cotton	44	46	45	53	53	53	54	51	43	42	35	32
Other	76	69	83	89	80	74	92	78	62	56	57	52 47
Total	60	61	61	60	66	65	65	64	65	60	58	50
Wholly Manufactured Goods	261	257	282	276	268	268	299	259	233	225	240	192
Total Retained Imports	201	201	202	210	208	208	299	209	235	225	240	192
EXPORTS, BRITISH:	18	16	19	19	21	19	20	19	16	15	15	12
	34	36	36	38	33	34	31	30	22	19	16	15
	106	109	111	107	107	112	113	98	88	86	08	63
	173	180	188	181	178	185	186	164	141	136	129	103
Total British Exports EXCESS OF IMPORTS:	1 110	100	100	101	110	100	100	104	171	100	123	100
Goods and Bullion	100	80	82	92	93	55	125	106	94	87	106	82
Goods and Dumon			40	- 52	33	.00	120	100	1	01	100	
TONNAGE OF SHIPS (with												0000
cargoes):		0000 Ton			0000		- 1	1		Tons	44.12.22	Tons
Entered from abroad	1541	1595	1549	1316	1589	1775	1590	1392	1659	1756	1565	1329
Cleared for abroad	1606	1692	1636	1553	1728	1863	1723	1610	1656	1738	1581	1358
		0000 Ton	_		0000				0000	Tons		0000 Tons
PRODUCTION:	5792	5638	6154	0017	6265	6284	6701	7014	5911	5634	1 6164	5941
Coal (13 weeks)	172	156	163	6813	192	202	196	192	180	133	115	101
Pig-iron (3 months)	211	203	220	167 240	248	241	237	237	199	165	128	139
Steel ", "	211	000 Tons		240	000		1 201	اس		Tons	1 120	000 To
Chink all din a (annuage and)	279	245	432	362	428	1 360	499	427	230	1 161	132	33
Shipbuilding (commenced)	418	243	404	302	740	000	100		1 200	1		
INDEX OF PRODUCTION:	1					Harri				J. J.		
Bulletin % of 1924	103-7	95.4	105.2	108.3	111.0	108.2	114.8	109.6	100.9	90.7	92.7	84.8
Board of Trade ,,	103.6	100.2	108.4	110.6	112.0	110.7	114.0	110.9	103.1	99.4	99.0	1

Except Bankers' Advances for which mean weekly averages are given.

			1928			19	29			19	30		1931
INDEX NUMBERS. Percentage of 1924 level.	Date in	2nd	3rd	4th	1st	2nd	3rd	4th	lst	2nd	3rd	4th	lst
	Quarter	Qr.	Qr.	Qr.	Qr.	Qr.	Qr.	Qr.	Qr.	Qr.	Qr.	Qr.	Qr.
PRICES OF COMMODITIES— General—Board of Trade Statist	Last month	85·8	82·8	83·1	84·4	81.6	81·7	79·7	74·9	72·6	69·5	65·5	63·7
	Last day	88	84	85	87	81	81	78·5	74	69	65	62·5	61·5
Materials—Board of Trade	Last month	81·3	79·8	80·0	81·2	79·1	79·5	77 ⁻ 1	73·4	70·4	67·0	63·3	62·1
Statist	Last day	86	84	84	87	80·5	79·5	76	72	66·5	62·5	59	58·5
Food—Board of Trade	Last month	94·7	88°7	89·1	90·3	86·2	85·8	84 ⁻ 6	77 [.] 7	76·6	74·4	69·8	66·8
Statist	Last day	92	84	85	86	83·5	83	81	76	72·5	70	67·5	66
Retail—Food Cost of Living	Last day	92 94	92 95	93 95	88 92·5	87·5 92	91·5 94·5	92 9 5	84 90	83 88·5	84 89	81 87·5	76 84
Wage Rates	Fortnight after end	100	99·5	99.5	99•5	99-5	99	99	98.2	984	984	984	97
PRICES OF SECURITIES— Industrials Fixed interest	,, ,,	139	146	149	143	136	135	124	120	112	103	96	9/
	,, ,,	99·4	98·2	101-1	97-9	96:0	93·9	95·5	100-3	99·7	101·3	103·5	100 3
SHORT MONEY	,, ,,	1.20	129	1 25	158	160	189	136	82	69	65	68	7

		P	IG-IRC	N.				CRUD	E STEE	L.	EXPO IRON &	RTS OF STEEL
		Produc- tion	+ Im- ports	- Ex- ports	=Home Cons'mp- tion	% Imports to Home Consump- tion	Pro- duction	* Imports	Home Con- sumption	% Imports to Home Con- sumption	Semi- Finished	Finished
1913	Qrly.	2565	46	236	2375	1.9	1916	215	2131	10	209	751
1923	Quart'r 1 2 3 4	1745 2059 1813 1821	41 28 21 11	228 211 137 149	1558 1876 1697 1683	2.6 1.5 1.2 6	2144 2338 1902 2105	138 141 140 133	2282 2479 2052 2238	6·0 5·7 6·8 5·9	} 512 } 567	1144 1161
1924	1 2 3 4	1918 1877 1774 1750	66 86 50 87	101 165 96 124	1883 1798 1728 1713	3·5 4·8 2·9 5·1	2279 2173 1862 1902	228 296 256 302	2507 2469 2118 2204	9·1 12·0 12·1 13·7	} 481 } 460	1212 1081
1925	1 2 3 4	1724 1655 1386 1471	83 61 60 60	124 109 87 147	1683 1606 1359 1384	4·9 3·8 4·4 4·3	1942 1835 1708 1913	286 290 276 306	2228 2125 1984 2219	12·8 13·6 13·9 13·8	181 179 188 204	589 572 576 662
1926	1 2 3 4	1604 670 44 124	70 53 109 245	136 74 53 13	1538 649 100 356	4·6 = =	2128 741 180 511	296 277 444 544	2424 1018 624 1055	12·2 — —	227 170 98 86	704 562 408 409
1927	1 2 3 4	1688 2051 1833 1731	204 180 108 74	40 70 74 92	1852 2161 1867 1713	8·3 5·8 4·3	2507 2482 2107 2003	562 391 356 373	3069 2873 2463 2376	13·6 14·4 15·7	213 298 252 241	564 735 768 782
1928	1 2 3 4	1704 1718 1561 1628	45 22 16 9	90 102 89 116	1659 1638 1488 1521	2·7 1·4 1·1 0·6	2184 2105 2034 2202	329 287 252 277	2513 2392 2286 2479	13·1 12·0 11·0 11·2	219 246 243 272	734 702 652 720
1929	1 2 3 4	1674 1924 2018 1963	24 20 29 44	117 130 106 103	1581 1814 1941 1904	1.5 0.9 1.5 2.4	2404 2483 2406 2366	200 268 252 270	2604 2751 2658 2636	7·6 9·7 9·5 10·2	265 237 250 258	737 692 653 716
1930	1 2 3 4	1923 1797 1328 1149	66 62 74 89	91 72 52 56	1898 1787 1337 1182	3·4 3·5 5·5 7·5	2374 1988 1653 1284	334 245 210 300	2708 2233 1863 1584	12·3 10·9 11·3 18·9	225 159 150 139	647 567 506 426
1931	1	1012	62	44	1030	6.0	1389	227	1616	14.0	99	331

*Blooms, Billets, Sheet and Tinplate Bars.

TABLE A. NET IMPORTS OF RAW MATERIALS (EXCLUDING RUBBER) AND CERTAIN PARTLY MANUFACTURED GOODS. DECLARED VALUES. £ Mn.

	1924. Quarterly Average.	arterly					929. irters.	4		4	1931. Quarter		
Pig iron, etc Copper, tin, lead, zinc Yarns Leather	1.8 5.4 1.8 2.9	1·2 5·2 1·8 3·8	1·1 4·5 1·6 3·7	1·3 5·6 1·9 3·5	1 1·1 5·0 1·8 2·9	1·4 6·2 2·1 3·1	1·3 5·4 2·0 2·9	1.4 5.8 2.1 4.8	1.6 5.0 1.8 3.0	1·2 4·6 1·5 2·9	3 1·2 3·9 1·3 2·8	1·3 3·4 1·6 3·1	1.0 3.1 1.3 2.3
Minerals (non-metals) Iron Ore Other Metals Wood Oil Seeds, &c Hides Paper Materials Silk Other Textiles (except	1·3 2·1 3·7 12·6 12·1 2·0 2·9	1'3 1'3 4'1 8'2 11'3 1'6 2'6	1:3 1:1 3:7 15:0 10:8 3:9 2:5	1·3 1·1 4·4 12·6 9·4 1·4 3·0 ·6	1.2 1.4 3.9 5.9 11.7 1.2 2.5	1·3 1·5 5·1 7·8 10·7 ·9 3·4 ·4	1.5 1.8 3.7 17.4 9.7 2.9 3.4	1.4 1.8 3.9 13.9 9.8 2.5 3.7	1:3 1:7 3:7 6:9 9:1 2:7 2:9	1·4 1·6 3·6 9·0 9·2 ·8 3·2 ·3	1.2 1.0 2.5 15.4 7.3 1.9 3.0	1·0 ·9 2·3 11·0 6·8 ·9 3·0 ·4	1.0 .7 1.8 4.2 6.6 .9 2.3
Cotton and Wool) Cotton Wool	3·4 27·5 10·9	2:2 20:2 10:6	2.9 11.6 1.8	3·4 26·5 3·9	4·9 25·2 14·1	3·3 15·4 13·5	2·0 8·6 4·5	4·0 23·6 6·1	4:0 16:3 12:5	2·3 8·7 7·3	1·1 4·6 4·0	1:4 12:0 4:6	1.8 7.3 8.8
Total, both groups and miscellaneous	92:8	77:9	68:7	82.7	85.8	78·5	70:3	88:2	75.7	59 ·6	54.3	56.0	45.5
Total. excl. cotton and wool	54:4	47:1	54.2	52·3	46.5	49.6	57:2	58.5	46.9	43.6	45.7	39.4	29.4

	1924 Qrly. Av.	2	1928 Quarter 3	s. 4	1		929 rters. 3	4	1		1930 arters. 3	4	1931 Quarter
Coke Earthenware Iron & Steel Other Metals Cutlery Electrical Goods Machinery Wood Cotton Wool Silk Other Textiles Apparel Chemicals Oils Leather Paper Vehicles Rubber	1.6 1.6 18.5 18.5 18.5 19.2 2.7 11.2 49.8 17.0 6.9 7.5 6.4 2.2 1.8 2.7 6.7 1.5	7 3-3 16-8 4-5 2-9 13-9 -6-3 33-8 12-6 6-7-0 5-8 6-5 2-1 2-4 11-0*	9 34 157 58 228 127 6 360 160 6 72 60 123 222 119*		1.1 17.3 4.4 2.1 2.3 37.6 37.6 14.8 6.7 6.3 6.7 6.3 6.7 2.1 1.7 2.2 12.3*	.8 3.5.7 4.6 2.3 3.3.5 13.5 8.9 11.1 6.5 4.2 2.3 13.7 9 13.7 9	1·1 3·7 16·3 4·6 2·4 3·2 3·7 34·1 15·3 7·0 7·2 8·2 2·1 2·5 12·5 9†	1·2 3·7 17·6 4·6 2·5 3·8 14·3 30·9 11·6 6·6 6·7 7·2 2·2 2·3 11·7 8‡	100 3154 377 203 330 6303 122 4 598 622 211 158 110*	3.6 3.13 3.00 1.99 12.00 21.6 7.2 4.4 4.3 5.6 1.9 1.5 2.1 15.2*	9 3.0 11.9 2.6 1.8 1.1 11.0 19.5 9.7 4.4 4.5 5.3 1.2 2.1 11.6* 7,7	1.0 2.6 10.8 2.7 1.7 2.7 11.0 5 16.2 7.8 3 4.1 4.4 5.0 1.6 1.1 1.9 12.9*	800 800 1558 41558 8454 1543 5583 1486 858
Total, including Miscellaneous	154.7	139-4	144.6	147.5	145·1	138.9	146.2	143.6	128 4	110.3	104.8	96-3	78-4

* Including rubber tyres.

† Excluding rubber tyres.

STOCKS OF STAPLE COMMODITIES

The following table is supplementary to the Summary table, p. 2, Special Memorandum 32, and except in the case of Tin, Lead, Copper, Rubber and Coffee, the which do exist. For the limitations of the figures are a continuation of the previous

statistics of stocks are in most cases incomplete, but a certain degree of comparability should obtain in the figures statistics quoted below reference should It should be remembered that be made to the Special Memorandum.

STOCKS OF STAPLE COMMODITIES

	inning of Month.	(1) American Cotton.	(2) Copper.	(3) Tin. 1,000	Le 1,000		(5) Spelter 1,000	(6) Rubber. 1,000	(7) Sugar. 1,000	(8 Tea.	Coff 1,000	ee. bags.	(10) Petrol- eum. Mn.
		1,000 bales	tons.	tons.	U.S.	U.K.	tons.	tons.	tons.	Mn. Ibs.	Exe. Rio.	Total.	barrels
1929	Jan	3,494	292		32.8	0.9	42	266	4,271	220		15,703	624
	Dec	3,566	354	32.4	51.3	0.4	69	348	4,946	236	22,220	23,762	626
1930	Jan. Feb. Mar. April May June	3,485 3,744	401 435 457 479 525 528	35.9 38.2 41.0 41.1 43.5 45.9	50.8 42.2 37.1 41.1 37.5 44.3	2·0 4·5 6·7 6·8 7·6 7·4	73 85 87 90 92 100	383 401 422 426 431 418	5,473 5,533 6,148 6,982 7,298 6,955	260 * 267 210 235 215	23,451 24,487 25,012 25,770 27,667 27,316	25,063 26,222 26,768 27,470 29,310 29,814	630 633 639 639 636 637
	July	4,970 5,348 5,753 5,967 6,097 6,273	522 517 532 545 554 543	49·1 49·0 49·2 47·5 47·5 47·5	49.6 56.1 65.0 65.8 75.3 80.7	7·4 7·0 5·7 6·2 6·2 7·2	109 117 123 131 139 142	430 448 464 1483 492 491	6,156 5,021 4,233 3,165 4,413 6,125	209 201 214 222 235 243	26,803 25,920 26,722 27,505 27,209 28,360	28,424 27,529 29,203 * 29,366 30,447	632 628 626 613 611 609
1931	Jan Feb Mar April	6,471 6,578 6,888 6,898†	535 525 519 510	51:0 53:1 57:7 58:4	92:2 101:0 110:0	8:3 10:5 13:2 13:5	140 142 142 140	506 527 533	6,877 7,118 7,573	262 274 270 242	27,399 27,156 26,945	29,309 28,829 28,457	602 598

† Provisional.

t "U.S.A. Afloat" no longer available.

* Not available.

- (1) Total supply seasonally corrected, exclusive of European and Asiatic mill stocks.
- (2) Total supply outside hands of consumers less Japan Stocks. (3) London Metal Excha: ge Visible Supply plus "Tin" estimate of Straits Stocks.
- (4) U.S. and Mexico refined stocks to April, 1980. U.S. only since: U.K. stocks in official warehouses.

(5) Visible supply in U.K. and U.S.

- (6) An estimate of World's stocks supplied by Rubber Growers'
- Association.

 (7) Total visible supply, exclusive of Interior Stocks in Cuba prior to Oct., 1926.

 (8) Bonded Warehouse Stocks to Jan., 1929. Tea Brokers' Assoc.
- since.

 (9) Visible supply in Brazil (Ports and Interior). Euro
 U.S.A. (a) exc. Rio Interior. (b) inc. Rio Interior.

 (10) Stocks of Crude and Refined Oils in U.S. Europe and

Value of chief articles exported in the First Quarters of 1930 and 1931 to the principal countries concerned.

	1st Q 1930 1	r. .931		1st (1930)r. 1931		1st (1930	
	£000)		£00	00		£00	00
OTTERY, Etc. U.S.A	209 51 107 57 64 189	106 21 64 38 41 37	RAIL LOCOMOTIVES (Steam and other) Argentine Rest of S. America British S. Africa British India Other Countries	127 49 45 513 118	269 16 35 252 84	COTTON PIECE GOODS—continued India & Ceylon Straits Settlements & Malay States	7174 233 312 1553 302	1560 147 106 730 181
New Zealand Other Countries	76 183 534	40 153 260		852	656	Canada Other Countries	345 2095	182 1223
	1470	760	MACHINERY (Electrical). Europe S. America	347	272	To S. Ireland WOOL TOPS & WORSTED	22240 267	10062 215
PIG IRON & FERRO ALLOYS Belgium France Italy U.S.A Other Countries	121	23 40 21 29 175	S. America S. Africa S. Africa	173 180 312 295 428 1735	152 95 217 59 421 1216	YARN. Sweden Germany Japan Canada Other Countries	177 621 12 345 915	48 319 10 306 463
	617	288	MACHINERY (Prime Movers, not electrical).			To S. Ireland†	2070 63	114 5
PLATES & SHEETS (not coated). Japan British India Australia & New Zealand Other Countries	309 103 222	16 61 39 344 460	Russia France Spain Rest of Europe S. America British S. Africa British India and Ceylon Straits Settlements Australia Other Countries	111 83 65 286 25 87	64 26 13 107 104 33 208 17 58 195	WOOL & WORSTED TISSUES Germany Netherlands Belgium France Italy Other European Countries China Japan	768 214 260 349 360 666 318 157	45 17 18 24 18 56 39
GALVANISED SHEETS. Dutch E. Indies Argentine, Uruguay British W. Africa British India	. 64 . 45 . 132 . 107 . 598	19 19 53 94 193	TEXTILE MACHINERY. Russia Germany Netherlands	112 97	825 53 57 50	U.S.A	988 224 307 156 824	24 63 21 21 11 45
Australia	283 103 636	42 277		382 197	134 245 101 20	To S. Ireland	7839	499
To S. Ireland	1968	697 32	U.S.A	104 79 757 74	42 48 417	LINEN PIECE GOODS. U.S.A Cuba Brazil and Argentine Australia and New Zealand	450 129 67	3.
SHEETS (Tinned, etc.) Norway Germany Netherlands	80	23 40		2539	1267	Canada Other Countries	74 485	3.
Spain	136 155 84 159 180 112	160 51 95 13 80 115 63 78	Norway, Sweden, Denmark Germany and Poland Netherlands Belgium France Switzerland	1315 506 199 171 259	118 828 285 110 126 173 33	Other Countries	132 336 90	4 2 5
Argentine British India Straits Setts, and Malay Australia Canada	154 97 195 350 154	86 44 92 132 121 512	Roumania	170 135 87 444 422	113 59 74 34 205	To S. Ireland BOOTS AND SHOES. British S. Africa	134	2
<u> </u>	2974	1705	Canada	63	44	Other Countries	388	2
	. 19	8 54	COTTON PIECE GOODS. Norway, Sweden, Denmark	4242	-	LEATHER.	704 356	
Australia	. 33 . 42 . 341	10 48 184	Germany	. 384 . 364 . 472 . 124	206 163 182 257	Germany	. 95 . 448	
TIN (Blocks, etc.)	558	304	Dutch E. Indies China (with Hong Kong)	. 660	241 1054	To S. Ireland	1081 94	
Germany	. 171 . 519 . 11	30 12 67 313 7 156	Colombia	. 413 117 . 1119 . 122	90 44 671 193 276	PAPER. Foreign Countries British India Australia and New Zealand Other British Possessions	. 68 . 545	1
	1108	585	Foreign W. & E. Africa				911	

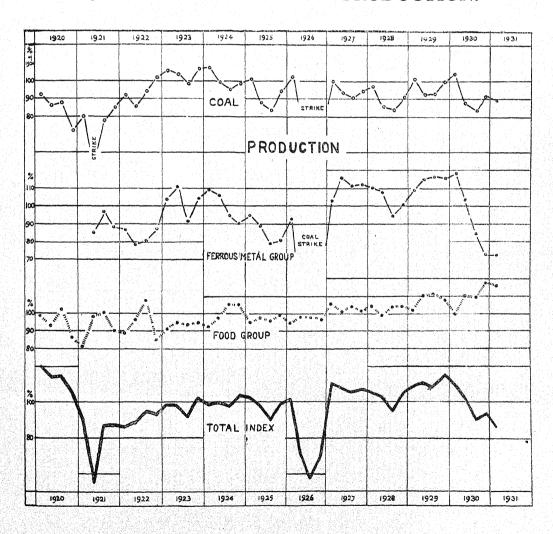
THE PHYSICAL VOLUME OF PRODUCTION.

HE Index Number of Production for the first quarter of 1931 is 84.8, which compares very unfavourably with 109.6, the corresponding figure in 1930.

The most important groups in the construction of the Index all show declines on the last quarter of 1930. Coal is at a very low level for a winter quarter; for Iron and Steel 63.2 is a very low figure, while Pig Iron, Steel, Shipbuilding and

Cotton all show reduced activity. The Food industries figure alone is maintained at its general level. The Total Index is 8 points below the figure for the fourth quarter of 1930. In former years the movements between the last quarter of one year and the first quarter of the next have been 1926—1, 1927+3, 1928—2, 1929+3, 1930—5 points. The results of the past quarter show a continuance of the progressive decline since the end of 1929.

QUARTERLY INDEX OF PRODUCTION.



QUARTERLY INDEX NUMBERS OF PRODUCTION. Average 1924=100.

G.	Industry	Ave quar produ	Wei	Year. 1924	1925	1926	1927	1928	1929	1930	1931
Group:	stry:	Average quarterly production, 1924.	Weights.	Qrs. 1 2 3 4	-1010 4	H884	H004	400p	1084	нам4	H
T	Coal- mining.	000 tons 67,308	232	107.3 99.3 95.0 98.4	100-8 87-8 83-6 94-4	102-5 29-8 10-4 41-6	100.0 93.5 90.8 94.1	97·1 86·1 83·8 91·4	101.2 93.1 93:3 99:5	104-2 87:8 83-7 91-6	88:3
	Pig Iron.	000 tons 1,827	27	105-0 102-8 97-1 95-3	94.4 90.6 75.9 80.5	87.8 36.7 2.4 6.8	91.8 112:3 100:3 94:8	93:3 94:0 85:4 89:1	91.6 105.3 110.5 107.5	105·1 98·4 72·7 62·9	55.4
	Steel,	000 tons 2,050	36	111.2 106.0 90.8 92.8	94·7 89·5 83·3 93·3	103·8 36·1 8·8 24·9	122:3 121:1 102:8 97:7	106:5 102:7 99:2 107:4	117.0 121.1 120:0 115:4	118.4 97.0 82.5 64.0	L-L9
ij	Ship- building	000 tons 1,373	õõ	100.0 106.7 103.1 90.1	79:5 74:1 67:6 57:4	55.6 55.6 48.6 48.1	87-2 100-6 111-8 114-7	104·9 87·6 79·4 90·5	98.8 105.9 105.4 113.6	117.6 101.4 81.4 66.2	9.09
	Ship-Railway building Vehicles	tons 9,929	9	142.7 112.9 78.3 66.1	167.9 150.0 111.9 98.5	188.6 149.1 94.0 82.6	67:0 155:7 196:3 244:6	199-3 265-1 154-2 126-2	139-9 131-6 152-8 149-9	149.0 180.8 151.2 189.8	104.9
	Group Index.		341	109.0 106.2 94.6 90.6	95·1 89·2 79·4 81·1	92.8 49.4 25.1 32.7	103.4 116.0 111.3 112.0	110·1 107·7 94·9 100·8	109.1 114.8 116.4 115.9	118·1 104·1 85·2 72·9	63.2
	Copper.	tons 39,626	99	96·9 93·8 104·1 105·0	97.4 95.7 104.8 94.3	110.9 95.8 118.8 116.7	119·7 132·0 112·4 125·9	125-8 126-1 120-6 118-2	117.4 120.8 114.7 120.1	103·1 121·1 129·4 114·5	9.88
III.	Lead, Tin and Zinc.	tons 87,967	69	96.4 87.3 118.5 97.7	102:3 108:9 117:0 124:9	123·8 111·1 110·4 121·5	131.6 115.8 124.4 114.2	109.9 120.0 94:3 106:5	106·1 120·3 120·4 109·7	119·7 113·7 100·4 123·9	0.96
	Group Index.		25	96.6 90.4 111.6 101.2	100.0 102.6 111.2 110.3	117.6 103.8 114.4 119.2	125-9 123-5 118-7 119-8	117·5 122·9 106·9 112·1	111.5 120.5 117.7 114.7	111.8 117.2 114.3 119.4	92.4
	Cotton.	bales 689	8.3	104·2 90·4 79·7 126·0	136.9 120.6 101.6 135.1	135.0 102.8 81.7 107.2	142.8 120.2 109.6 109.3	114.4 109.0 92.9 115.0	117.6 111.4 85.8 118.6	107.3 86.4 61.3 81.3	1.11
17.	Silk.†		0.7	74.6 94.3 111.5 119.5	112·2 152·0 81·9 79·3	92:7 96:5 86:3 105:0	108:2 101:8 96:9 147:6	151.1 136.6 140.8 158.0	147·3 142·2 162·8 175·0	159.0 125.0 127.2 140.7	121.3*
	Group Index.		216	101.0 90.8 83.2 125.3	134.2 124.0 99.5 129.0	130.4 102.1 82.2 107.0	139.0 118.2 108.2 113.5	118 ^{.4} 112 ^{.0} 98 ^{.1} 119 ^{.7}	120°8 114°7 94°1 124°5	112.9 90.6 68.4 87.7	77.1*
	Wheat and Flour.	000 ewts. 31,914	09	85.4 99.6 111.6 103.3	89.2 89.3 88.4 91.1	82.2 87.0 97.9 84.0	92.4 103.6 98.0 92.3	93.2 86.4 92.7 91.8	87.0 94.9 100.1 91.4	81.3 91.8 99.8 101.9	6.68
Δ	Cocoa.	ewts. 259,231	II	109.6 89.6 88.7 112.1	109.9 113.3 99.2 112.1	119.3 114.4 87.6 113.9	144.3 82.4 102.8 101.3	121.4 103.7 102.5 101.0	115.3 116.7 103.4 108.3	99.9 121.7 96.5 121.6	151.2
	Tobacco	000 lbs. 36,477	4%	95·6 99·7 101·9	96·3 105·2 110·2 108·5	102:5 112:7 104:8 112:8	107.2 110.0 118.7 121.9	116.9 124.3 127.7 133.6	123:3 139:1 141:1 142:1	138:3 136:7 138:0 145:4	142.9
	Group Index.		509	92.5 97.8 104.9 104.8	94-8 97-8 96-0 99-4	95.3 98.6 97.8 96.8	105.7 101.4 104.2 101.6	104.4 99.3 103.5 104.2	101.9 110.6 111.3 107.9	99.8 110.3 109.3 117.1	115·3
VI.	Oil Seed crush- ing.	000 tons 435·3	1	109-9 97-8 87-8 104-5	118°2 91°1 93°0 84°6	92.8 84.6 80.4 59.7	82.8 77.5 66.8 70.6	98.8 99.8 79.5 72.7	109.2 86.0 69.7 87.7	79.7 69.2 59.1 75.7	85.0
	Group Index (incl. heavy Chemi-		29	95.4 103:0 101:0 101:2	107.6 94.4 82.4 87.4	90.0 79.5 72.6 84.4	107.0 92.6 92.8 97.9	104-8 103-8 93-3 102-7	100.1 102.1 103.4 105.4	94.5 88.8 97.7 84.5	85.0*
VII.	Paper.	000 tons 244.3	88	53.7 104.9 127.2 114.2	77.3 99.4 108.6 111.2	91.7 114.4 114.8 103.5	109·0 112·1 126·4 124·2	82.4 118.0 99.8 122.9	111.2 136.6 139.7 147.0	116·3 127·0 125·4 122·5	101.6
	Final Index.		1183	98.8 99.9 97.9 103.8	102.6 98.2 90.1 99.1	102.2 72.0 57.3 69.7	110°8 108°1 105°9 107°4	105.7 103.7 95.4 105.2	108.3 111.0 108.2 114.8	109.6 100.9 90.7 92.7	84.8

* Partly Estimated.

+ Includes artificial silk from 3rd Qr. 1925.

‡ Under Construction.

FOREIGN EXCHANGES.

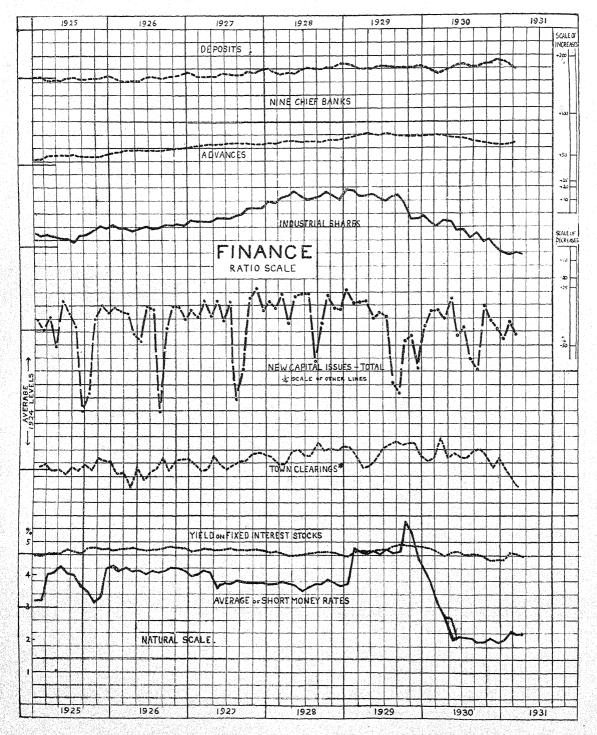
	Paris f. to £	Milan	Berlin M. to £	Amster- dam fl. to £	Prague kr. to £	Berne f. to £	Stock- holm kr. to £	NewYork \$ to £	Buenos Aires d. to \$	Rio de Janeiro d. per mil.	Bombay d.perrup.	Hong- kong d. per \$	Kobe d.peryer
arity	124.21†	92.46§	20.43	12·107	24.02	25.2215	18:159	4.866	47:58	27	18	_	24.58
*****				For 191	9 to 1926	RATES S	EE EARLI	er Bulle	TINS.		'		
1927 AN PEB IAR PRIL IAY UNE	122·57 123·63 124·01 123·98 123·97 123·97	111.6 112.3 107.7 97.05 89.96 86.94	20·454 20·466 20·468 20·490 20·501 20·494	12:135 12:123 12:130 12:140 12:136 12:124	163.8 163.7 163.9 164.0 163.9 163.9	25·176 25·220 25·235 25·251 25·253 25·244	18:171 18:174 18:144 18:135 18:157 18:128	4·853 4·850 4·854 4·857 4·857 4·856	46.40 46.93 47.51 47.55 47.56 47.69	5·80 5·87 5·87 5·83 5·80 5·84	18·03 17·97 17·96 17·88 17·93 17·91	24·17 24·79 24·01 24·50 24·32 24·21	24·15 24·20 24·31 23·90 23·26 23·09
ULY LUG EPT OCT OEC		89·04 89·32 89·35 89·12 89·47 90·69	20·450 20·431 20·433 20·408 20·422 20·435	12:119 12:129 12:135 12:116 12:075 12:073	163·9 164·0 164·0 164·3 164·4 164·7	25·220 25·212 25·222 25·249 25·272 25·277	18·128 18·116 18·094 18·084 18·098 18·080	4·8552 4·8606 4·8634 4·8740 4·8740 4·8825	47·76 47·85 47·95 47·90 47·83 47·82	5·83 5·87 5·87 5·91 5·89 5·91	17 87 17 87 17 97 17 97 17 99 18 10	24·15 23·68 23·83 23·95 24·43 24·63	23·31 23·37 23·14 22·96 22·65 22·71
1928 JAN FEB MAR APRIL MAY JUNE	124.00 124.02 124.02 124.01 124.01 124.16	92·17 92·07 92·37 92·55 92·65 92·76	20·461 20·431 20·412 20·412 20·399 20·417	12.086 12.109 12.124 12.110 12.098 12.098	164·5 164·5 164·64 164·71 164·72 164·67	25·302 25·336 25·339 25·332 25·327 25·317	18·138 18·161 18·183 18·193 18·186	4·8758 4·8750 4·8801 4·8821 4·8817 4·8805	47.83 47.88 47.86 47.81 47.80 47.66	5.92 5.92 5.93 5.92 5.92 5.89	18·10 18·00 18·00 18·00 18·01 17·95	24·69 24·44 24·40 24·42 25·05 24·66	23·09 23·08 23·20 23·47 22·94 22·95
JULY SEPT OCT NOV DEC	124·18 124·14 124·11	92·81 92·74 92·74 92·61 92·57 92·66	20·384 20·364 20·356 20·363 20·354 20·360	12.084 12.101 12.097 12.096 12.082 12.078	164·13 163·76 163·65 163·63 163·64 163·72	25·255 25·211 25·200 25·200 25·190 25·178	18·161 18·134 18·130 18·138 18·143 18·132	4·8642 4·8538 4·8508 4·8498 4·8495 4·8525	47:43 47:41 47:34 47:34 47:47 47:36	5·90 5·91 5·91 5·92 5·91 5·89	17.91 17.95 18.06 18.06 18.07 18.062	24·54 24·50 24·36 24·55 24·59 24·51	22.65 22.29 22.69 22.88 22.96 22.75
1929 JAN FEB MAR APRIL MAY UUNE	124·23 124·24 124·21 124·14	92.67 92.70 92.68 92.70 92.65 92.67	20·402 20·447 20·455 20·475 20·415 20·335	12·091 12·115 12·117 12·090 12·067 12·074	163.83 163.84 163.85 163.93 163.85 163.73	25·207 25·231 25·229 25·214 25·190 25·198	18·138 18·155 18·170 18·173 18·154 18·113	4·8503 4·8525 4·8529 4·8534 4·8510 4·8485	47·42 47·39 47·28 47·28 47·24 47·17	5·91 5·90 5·86 5·87 5·87 5·87	18·056 18·013 18·008 17·965 17·912 17·854	24·49 24·08 24·08 23·92 23·68 23·66	22.56 22.38 22.05 22.08 22.11 21.77
ULY SEPT OCT NOV DEC	123.88 123.90 123.87 123.89 123.85	92:74 92:74 92:69 93:00 93:16 93:24	20·359 20·360 20·361 20·397 20·389 20·386	12:086 12:103 12:093 12:098 12:087 12:096	163.90 163.83 163.76 164.41 164.57 164.47	25·221 25·203 25·164 25·176 25·151 25·109	18·100 18·101 18·101 18·141 18·149 18·102	4·8511 4·8488 4·8479 4·8695 4·8777 4·8817	47·23 47·21 47·20 46·82 46·26 45·86	5·87 5·88 5.87 5·86 5·80 5·56	17.818 17.830 17.869 17.871 17.886 17.936	23·89 23·87 23·73 21·73 21·18 20·52	22·54 23·13 23·42 23·58 24·01 24·10
1930 JAN FEB MAR APRIL MAY JUNE	124·16 124·26 124·10 123·90	93·05 92·87 92·84 92·78 92·71 92·76	20·387 20·366 20·382 20·375 20·365 20·372	12:102 12:123 12:125 12:097 12:081 12:086	164·58 164·26 164·11 164·16 163·97 163·85	25·163 25·198 25·136 25·094 25·108 25·084	18·136 18·124 18·106 18·092 18·111 18·095	4·8621 4·8632 4·8634 4·8599	45·12 42·70 42·24 43·61 43·02 41·67	5·52 5·55 5·72 5·81 5·86 5·63	17:931 17:907 17:862 17:860 17:835 17:816	19·47 18·66 18·24 18·40 17·67 15·45	24·23 24·28 24·38 24·38 24·39 24·41
JULY AUG SEPT OCT NOV DEC	123.66 123.82 123.77 123.85 123.65	92·88 92·98 92·83 92·80 92·78 92·72	20-383 20-387 20-404 20-412 20-379 20-369	12.092 12.089 12.067 12.058 12.068 12.061	163.79	25·044 25·047 25·049 25·049 25·049	18.096	4·8708 4·8614 4·8589 4·8566	40.84 40.67 40.37 38.50 38.65 37.42	5·34 4·87 4·98 ‡ 4·85 4·73	17:821 17:790 17:788 17:818 17:789 17:779	15.81 15.55	24·39 24·37 24·41 24·51 24·51 24·53
1931 JAN FEB	. 123·81 123·94	92:74 92:81	20·418 20·438	12 [,] 066 12 [,] 103		25·075 25·181		4·8550 4·8565		4·45 4·24	17·782 17·781		24·48 24·41
	124·00 124·12 124·17 124·17 124·20 124·25	92·73 92·73 92·74 92·75 92·79 92·82 92·80	20:436 20:408 20:397 20:387 20:400 20:406 20:404	12·117 12·118 12·121 12·120 12·120 12·116 12·104	163·94 163·94 163·95 163·97 164·02	25.235	18·145 18·145 18·143 18·153 18·153	5 4·8581 5 4·8589 6 4·8594 L 4·8589 2 4·8592	38·73 39·09 39·09 39·07 39·01	3·69 3·66		3 12·10 7 12·38 5 12·41 3 12·23 3 11·96	24·4 24·4 24·4 24·4

^{† 25&#}x27;2215 before June 24th, 1928.

^{§ 25°2215} before December 22nd, 1927.

[|] Zurich from November 12th, 1929.

[‡] Moratorium.



Scale applicable to all lines.

* NORMAL SEASONAL CHANGE REMOVED.

FINANCE.

	ST	OCKS &	SHAR	ES	NE	w	BAN	CLE	ARIN		- WANTE CONTRACTOR		ОТІ	ier e	ANKI	īG.	San Principal Constitution of the Constitution	and the William	· ·		MONE	Υ.
	-	strials × H	Fix Inte		CAPI ISSU		Lond	on Ban	kers'	Pro- vincial	Ban Engl				9 Cles Bar	aring			BILLS.	Index.	ate.	ą.
	New Index§ of Price	Sensitive Index Month-to-Month Variations	Index of Price	Index of Yield	for U.K.	for Abroad.	То	wn.	Country.	11 Towns.	Private Deposits.	Bank and Currency Notes.1	Deposits.	Discounts.	Advances.	finvest- ments.	Ratio of Cash to Deposits.	Ratio of Advances to Deposits.	TREASURY	Short Money In	Day to day rate	3 months' rate.
	%	%	%	%	£Mn.	£Mn,	£N	In.	£Mn.	£Mn.	£Mn.		1.	£Mn.		£Mn.	%	₩ %	£Mn.	Sho	%	%
1924 Average	100		100	100	7.4	11.5	2070	*	226	147	109	390	1632	242	791	324	11.7	48.5	601	100	2.43	3 ·45
1925 1st Qr. Av. 2nd ,, ,, 3rd ,, ,, 4th ,,	109 106 107 114		100·3 98·5 98·0 96·3	99·7 101·5 102·2 103·9	13·8 14·6 3·8 11·9	5·3 7·8 3·1 13·1	2230 2140 1950 2140	2130 2080 2100 2230	235 235 221 234	150* 140* 135 146	114 107 112 110	382 386 385 379	1634 1609 1619 1631	227 199 231 237	827 849 841 841	289 273 257 261	11.8 11.9 11.8	50·6 52·7 52·0 51·5	611 573 615 641	116 138 125 119	3·10 3·96 3·41 3·42	4·03 4·46 4·08 4·01
1926 1st Qr. Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	114 113 114 116	•••	96·8 97·0 96·2 95·5	103·3 103·1 103·9 104·7	14·7 8·1 8·5 15·7	11·3 9·8 6·2 10·2	2070 2100 1990 2150	1970 2040 2150 22 50	231 219 205 226	141 123 117 128	107 103 108 104	371 381 374 371	1610 1600 1634 1662	209 195 226 225	866 875 874 887	255 244 247 251	11·7 11·9 11·8 11·8	53·8 54·6 53·5 53·4	611 578 624 667	140 137 137 140	4·15 3·92 3·95 4·02	4·54 4·37 4·40 4·63
1927 1st Qr. Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	119 121 124 131		97·0 96·6 96·6 97·3	102·9 103·5 103·5 102·8	17·8 16·5 7·2 17·2	9·8 5·8 6·8 20·4	2228 2253 2040 2240	2117 2190 2200 2340	251 238 224 238	135 131 129 140	105 98 100 101	364 377 376 376	1660 1659 1672 1711	220 200 211 233	803 913 919 916	245 237 236 236	11.6 11.7 11.5 11.5	54·5 55·1 54·9 53·5	642 576 609 651	135 127 126 125	3·91 3·68 3·66 3·59	4·23 4·07 4·33 4·32
1928 JAN FEB MAR APR MAY JUNE	137 136 141 143 148 148		98.6 98.1 99.2 100.9 100.3 100.0	101·5 101·9 100·9 99·1 99·7 100·0	14·2 22·6 18·7 10·6 25·8 25·4	19.6 5.3 23.0 8.0 13.5 16.0	2370 2290 2300 2440 2400 2440	2270 2170 2180 2370 2410 2310	247 235 229 252 246 229	140 137 137 143 134 122	110 101 104 102 95 103	375 364 367 376 372 374	1747 1698 1672 1690 1688 1731	257 224 196 197 199 234	922 918 930 935 937 930	245 244 235 233 232 231	11·3 11·0 11·1 11·1 11·1 11·2	55.3 55.5	642 597 542 520 535 568	124 124 126 124 123 117	3·40 3·56 3·79 3·75 3·63 3·17	4·29 4·20 4·17 4·03 3·96 3·74
JULY AUG SEPT OCT NOV DEC	146 143		99·4 98·7 98·5 98·2 98·7 100·1	100·7 101·4 101·5 101·8 101·4 99·9	24·1 5·5 7·6 29·7 17·0 18·0	17·7 1·0 10·7 10·9 11·0 6·7	2190 2230 2300 2350 2330 2320	2320 2540 2390 2430 2410 2470	246 223 211 244 236 245	132 116 117 130 125 140	105 103 99 100 99 67+3	376 374 374 369 367 7 375	1749 1732 1732 1753 1752 1806	256 254 244 248 248 259	933 932 930 939 942 946	236 237 244 243 241 244	11·0 11·1 11·2 11·0 11·3	52·7 53·6 53·8	585 609 622 654 703 779	120 124 126 130 125 123	3·38 3·48 3·69 4·06 3·52 3·25	3·95 4·28 4·25 4·33 4·38 4·36
1929 JAN FEB MAR APR MAY JUNE	143 143	- 1·0 - 3·4 0 + 0·3 - 2·7	101·1 98·2 97·1 97·9 97·2 97·3	98·9 101·9 102·9 102·3 102·9 103·5	18:0 26:2 24:8 28:8 12:3 14:0	29·4 6·8 9·0 6·0 8·8 11·4	2570 2440 2230 2210 2250 2560	2460 2310 2120 2150 2250 2430	250 236 237 253 241 235	131 138 136 127 118 122	68+3' 58+36 63+36 61+36 61+36	353 355 355 359 363	1809 1777 1739 1743 1732 1770	274 260 214 191 195 216	956 968 980 987 977 978	250 246 244 244 244 244	10.9 10.6 10.8 10.9 10.9	54.5 56.4 56.6	780 774 712 707 702 756	125 162 160 158 159 156	3·54 5·06 4·58 4·44 4·69 4·23	4·31 5·23 5·38 5·27 5·23 5·28
JULY AUG. SEPT OCT NOV DEC	144 135 121	$\begin{array}{c c} - & 4.2 \\ + & 2.5 \\ + & 1.1 \\ - & 5.2 \\ - & 11.3 \\ + & 0.5 \end{array}$	96·0 94·2 93·5 93·9 94·1 94·5	104.0 106.2 107.0 106.5 106.3 105.8	13.9 2.2 1.5 7.5 6.3 4.0	8·3 1·4 1·2 4·0 6·6 1·2	2370 2250 2410 2440 2450 2170	2510 2560 2510 2530 2530 2320	248 226 224 248 242 248	129 112 114 123 123 127	63+36 65+36 63+36 70+37 55+42 58+36	371 362 360 358	1778 1759 1754 1765 1751 1773	234 225 222 227 231 227	985 980 971 971 970 971	242 242 242 241 235 236	10.7 10.7 10.9 10.7 10.6 11.3	55·4 55·7 55·4 55·0 55·4 54·8	757 776 772 787 792 805	160 156 157 189 177 151	4·73 4·13 4·21 5·27 5·38 4·64	5:33 5:47 5:49 6:22 5:66 4:80
1980 JAN FEB MAR APR. MAY JUNE	119 116 120	+ 0·3 - 4·6 - 2·6 + 6·5 - 3·4 - 7·0	95·5 96·1 98·1 100·3 98·4 97·7	104·7 104·2 102·0 99·7 101·7 102·4	11:3 8:0 16:9 11:9 17:8 7:7		2340 2400 2770 2340 2360 2430	2240 2280 2630 2280 2360 2300	250 236 234 249 235 228	119 121 120 114 104 102	64+36 59+36 59+36 66+36 58+36 59+36	348 350 361 356	1767 1714 1682 1712 1742 1788	243 218 181 207 246 273	970 973 976 970 957 958	233 229 225 225 231 233	10.9 10.6 10.8 10.9 10.7 10.6	54·9 56·8 58·0 56·7 54·9 53·6	758 678 615 571 585 618	136 125 104 82 68 71	4·04 3·85 3·35 2·23 1·94 2·13	4·11 3·96 3·03 2·49 2·14 2·33
JULY AUG SEPT OCT NOV DEC	106 110 103 105	+ 0.6 - 7.2 + 6.0 - 9.9 + 2.8 - 5.8	101.3		11.2	17·7 8·4	2150 2100 2340 2220 2070 2150	2,400 2,430 2,300 2,140	233 224 207 230 226 226	95 89 95 100	70+36 66+34 65+34 66+36 60+33 64+33	367 358 357 355	1794 1767 1764 1791 1801 1839	284 279 284 296 310 320	952 936 927 924 920 915	241 250 255 257 265 269	10.7 10.6 10.6 10.5 10.5 11.1		633 648 649 656 672 706	69 69 65 65 70 66	1.88 1.96 1.69 1.65 2.04 1.52	2·37 2·29 2·09 2·11 2·23 2·30
1931 JAN FEB MAR APR	94 95 E	- 4·0 - 3·5 + 2·7 - 3·0	99.6	100.6	7.4		2060		238 218 213	102 99 98	65+33 58+34 59+33 61+38	350 347 350	1836 1782 1726	328 299 238	909 909 921	281 293 295	10.6 10.5 10.5		784 646 587 571	68 76 75 75	1.87 2.50 2.23 2.31	2·17 2·52 2·62 2·61

Revised. ★NORMAL SEASONAL CHANGE REMOVED. ** From Dec. 1928 first figure Bankers, second figure Others. || Excluding Gamage, −2'4.

*Excluding Bradford. |

*Exclusive of Investments in Affiliated Banks. For Table of Exchanges see p. 15. I Issues amalgamated Nov. 22 1928.

STOCKS & SHARES— NEW CAPITAL ISSUES— BANK CLEARINGS—

BANK OF ENGLAND— PRINCIPAL BANKS— TREASURY BILLS— SHORT MONEY INDEX— New Index Nos. of Prices and Yield as percentage of 1924 level; on 15th of month. See Spec. Mem. No. 33. Sensitive Index.—Geometric Mean of monthly percentage changes.

Issues during month in Gt. Britain (a), for U. K. (b), for Abroad, excluding Government loans, etc.—See MONTHILY REVIEW OF THE MIDLAND BANK, LITD.

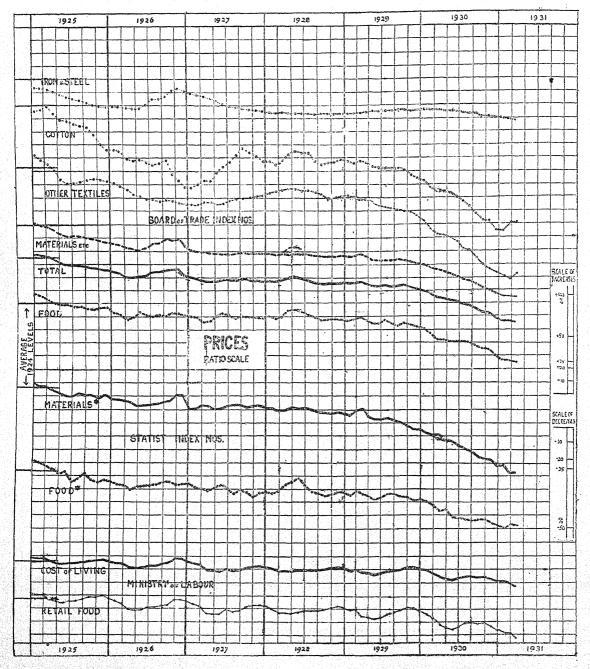
Total of Town Clearings (i.e., excluding Metapophitan) of London Bankers' Clearing House for 3 weeks covering [2 Stock Exchange settlement days, and 4th of following month. Country Clearings of London Bankers' Clearing House for 3 weeks covering of London Bankers' Clearing House and Provincial Clearings for 11 towns—proportionate totals for 24 working days. Deposits, other than public, 11th-17th of month.

Bank Notes and Currency Notes in circulation 11th-17th of month. Issues amalgamated, November 22nd, 1928. "Current, Deposit and other accounts," etc. Averages for the month of 9 clearing banks (i.e.—excluding the National Bank, Ltd.).—MONTHLY REVIEW OF THE MIDLAND BANK, LITD.

Total outstanding in middle of month (11th-17th).

Average of Bank Bate, Bankers' Deposit Rate, 3 Months' Bill Rate and day-to-day rate for week ending 15th of month, expressed as percentage of 1924 average.

Day-to-Day Rate and 3 Months' Rate. Averages for week ending 15th of month.



Scale applicable to all lines.

¥ NORMAL SEASONAL CHANGE REMOVED.

PRICES AND WAGES.

U.S.A. PRICES.

				WHOLES	ALE.				RETA	IL.	WAGES.	BUREAU	OFL	
	Bar Silver	Board o	of Trade Ind Food.	Materials.	Statis Foo		eck) Index 1 Raw	Nos.	M. of La	abour. Food.	New Index of Average	Wholesale Index General	Retail Index (Food)	Cost off Living All items
	(Cash).	%	%	etc.	%	%	Materials.	Total.	Living.	%	Weekly Wages %	MW %	% %	₩ %
1924	34.0	100	100	100	100	*	100	100	100	100	100%	100	100	100
Average. 1925 st Qr. Av and ,, ,, ird ,, ,,	32·2 31·4 32·4 32·3	101.6 96.0 93.9 92.0	105.6 100.6 98.3 97.2	99·4 93·6 91·6 89·2	105 97 96 93	104 97 96 94	101 96 96 95	103 97 97 95	101 99 100 101	102 98 100 101	100°5 101 100°5 100°5	106·5 104 106 106	104.5 104 110 113	102* 104‡
1926 st Qr. Av 2nd ,, ,, 5rd ,, ,,	31·0 30·2 29·1 25·2	88·6 87·2 90·2 90·4	92·8 93·1 92·5 93·9	86.3 84.1 89.0 88.5	91 92 93 90	90 91 93 92	92 89 90 94	92 90 91 92	98 96 98 101	96 94 95 99	100·5 100·5 100 100·5	104 102 101 100	111 110 107 111	102 103
1927 st Qr. Av ind , , , ird , , , th ,, ,,	25·3 26·1 25·5 26·4	85.6 84.8 85.1 84.8	90·8 91·6 91·8 91·3	82·9 81·2 81·6 81·5	89 91 87 85	89 90 87 86	88 87 88 89	89 89 88 87	97 94 94 97	94 91 93 96	101 101 101 100·5	97.5 95.5 97 99	108 107 105 107	101 100
1928 AN PEB IAR IPR IAY UNE	26·4 26·3 26·3 26·2 27·4 27·5	85·0 84·3 84·6 86·1 86·4 85·8	92·1 91·1 91·4 95·4 95·8 94·7	81·3 80·9 81·1 81·3 81·6 81·3	86 89 93 94 97 92	86 88 92 93 96 91	87 86 86 88 88 86	87 87 89 90 91 88	95 94 94 94 94 94	93 91 91 90 92 92	100·5 100 100 100 100 100	98 98 98 99 100 5 99 5	106 104 103·5 104 105·5 105	9:
ULY UG EPT OCT OEC	27·2 27·3 26·5 26·8 26·7 26·3	84·9 83·8 82·8 83·1 83·0 83·1	91·9 90·7 88·7 89·2 89·3 89·1	81·3 80·3 79·8 79·9 79·7 80·0	88 85 84 84 85 85	87 86 84 85 86 86	85 84 84 84 85 84	87 85 84 84 85 85	94 94 95 95 96 95	92 92 92 93 94 93	100 99·5 99·5 99·5 99·5	100 101 102 100 99 99	105 106 108 107 108 107	10
1929 AN 'EB IAR IAY UNE	26·4 25·8 26·0 25·9 25·3 24·3	83·2 83·3 84·4 83·4 81·7 81·6	88·7 89·4 90·3 88·5 86·3 86·2	80·3 80·0 81·2 80·7 79·3 79·1	85 87 86 86 82.5 83.5	85 87 85 85 81.5 82.5	84 86 87 82 80.5 79.5	84 86 87 84 81 81	94 95 92·5 92 91·5 92	91·5 92 88 87·5 86 87·5	99·5 99·5 99·5 99·5 99·5 99·5	99 98:5 99:5 98:5 97:5 98:5	106 106 105 104 105 106	9
ULY UG EPT OCT DEC	24·2 24·2 23·8 23·0 22·6 22·6	82·7 81·8 81·7 81·9 80·6 79·7	89·4 86·8 85·8 87·2 85·6 84·6	79·2 79·1 79·5 79·1 78·0 77·1	86 84·5 83 82·5 80 81	85 85 84 83·5 81·5 82	80·5 80 79·5 78 76 76	83 82 81 80 78 78:5	93 93·5 94·5 95·5 95·5 95	90 90·5 91·5 93·5 93·5 92	99·5 99·5 99 99 99 99	100 99.5 99.5 98 96 96	109 110 110 110 109 5 108	10
1930 ANARARARAAYAAYAAY	21·1 20·2 19·2 19·5 19·2 16·3	78·8 76·9 74·9 74·4 73·3 72·6	83·4 81·0 77·7 77·6 76·5 76·6	76·3 74·7 73·4 72·6 71·5 70·4	80·5 79 76 77 73 72·5	80·5 79 75·5 76 72 71·5	74 73 72 70 69 66.5	77 75 74 73 71 69	94 92 90 89 88 88·5	90·5 88 84 82 81 83	99 98·5 98·5 98·25 98·25	95.2 93.9 92.6 92.5 90.8 88.5	106.5 105 103 104 103 101	
JULY AUG SEPT OCT NOV DEC	16.0 16.3 16.8	71.7 70.9 69.5 68.0 67.4 65.5	76·4 75·9 74·4 72·9 72·5 69·8	69·2 68·2 67·0 65·4 64·7 63·3	72 69·5 70 70 68 67·5	71 70 70·5 71 69 68	65 64 62:5 61:5 61	68 66 65 65 64 62.5	89·5 89·5 89 89·5 88·5 87·5	84·5 84·5 84 84·5 83 81	98·25 98·25 98·25 98·25 98·25 98·25	85.6 85.6 85.8 84.2 82.0 79.9	99 99 100 99 97 94	
1931 JAN FEB MAR APR.		64·3 63·9 63·7	68·1 67·2 66·8	62·4 62·1 62·1	67·5 65·5 66	67·5 65 65	58 59 58·5	61:5 61:5 61:5	87 86 84	80 79 76	98°25 97.75 97°75 97°00	78.5	91	

PRICE OF SILVER-

Average (cash) price of bar silver for week ending 15th of month.—ECONOMIST.

BOARD OF TRADE INDEX—Geometric Mean of Wholesale Prices (averages for month) of 150 commodities as percentage of 1924 average.

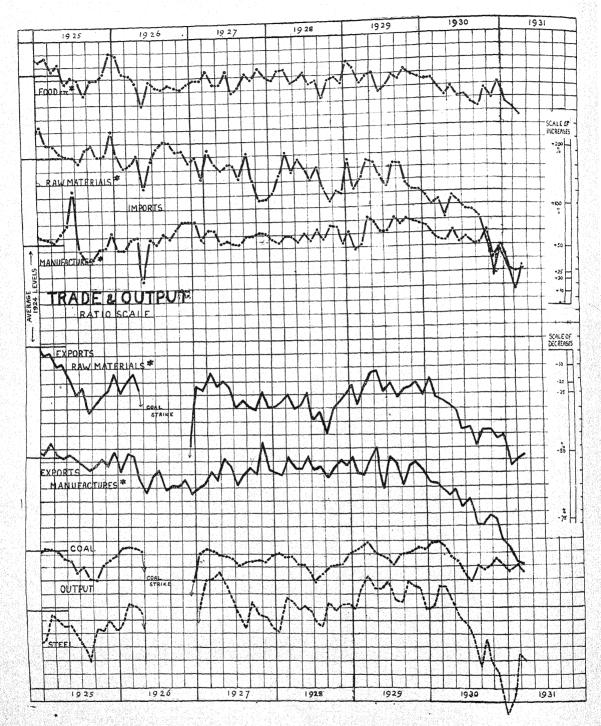
—BOARD OF TRADE JOURNAL. Average wholesale prices of 19 foodstuffs and 26 raw materials on last day of month, as percentage of average for 1924.—STATIST.

STATIST (SAUERBECK) INDICES-COST-OF-LIVING INDEX-

Ministry of Labour's index showing movement since 1024 in cost of maintaining unchanged the standard of living prevalent in working-class households before the war. For 1st of month, but placed against previous month—e.g., reading for March 1st is shown against February—to facilitate comparison with "Statist" index

RETAIL FOOD PRICES-WAGES INDEX-

As above, for food only. For description see Special Mem. No. 28.



Scale applicable to all lines.

* NORMAL SEASONAL CHANGE REMOVED.

TRADE AND OUTPUT.

			TOT	AL IM	PORT	S (Val	ues).				EXP	ORTS	of U	K. GO	ods	(Values)	.	0	UTPUI	1.	B'LD'
	Drin	od, k and acco.		aw erials.		inu- ures.	(incl	otal uding laneous)	TOTAL. NET IMPORTS.	Drin	od, k and acco.	Ra Mate		Ma factu		Tot (inclu Miscella	ding	Coal.	Pig Iron.	Steel.	Tonnag Com- menced
	£Mn		£Mn	•	£Mn.		£Mn.		£Mn.	£Mr		£Mn.		£Mn.		£Mn.		Tons Mn.	Tons 000	Tons 000	Tons 000
1924 Lverage.	47.6	¥	33.3	*	25.0	¥	106.4	*	94-8	4.7	*	8.9	×	51.6	*	66.8	*	21.2	520	641	263
1925 LstQr.Av. 2nd ,, ,, 5rd ,, ,, 1th ,, ,,	47·9 45.4 44·7 52·8	51.2 47.0 43.8 49.2	42·0 31·3 27·9 40·6	33.7 34.3	26·8 31·3 23·1 25·4	26·4 31·4 23·3 25·7	117·3 108·6 96·1 119·2	116·2 112·6 101·9 110·8	104·0 95·4 84·3 105·4	4·7 4·1 4·5 5·0	5·7 4·7 4·1 4·2	8·1 6·9 6·1 7·0	8.2 7.1 6.1 6.7	55·3 49·0 50·0 51·2	54.4 51.6 48.4 51.0	69.6 61.3 62.2 64.6	69·9 64·7 60·1 63·4	21·3 19·2 17·8 19·7	537 509 422 448	608 589 524 597	202 190 261 161
1926 stQr.Av 2nd ,, ,, 3rd ,, ,, th ,, ,,	46·1 40·8 43·8 46·2	49·1 42·3 43·0 42·9	28·4 30·5	31·8 30·6 36·1 33·5	25·6 24·2 26·3 28·9	25·1 24·2 26·5 29·2	107·1 93·7 101·0 112·5	106·4 97·4 106·0 106·1	94·8 83·9 92·4 101·6	4·2 3·6 4·3 4·6	5·1 4·2 3·9 4·0	6·7 3·8 2·0 3·2	6·9 4·0 2·0 3·2	50·9 40·9 45·0 42·5	50·2 43·1 43·7 42·3	63·2 49·5 52·6 52·0	63·5 52·5 50·8 51·1	21·5 —† — —	499 207 13 38	665 245 56 161	193 168 68 152
1927 stQr.Av. end ,, ,, ird ,, ,,	43·1 43·4 43·9 49·6	46:0 44:9 43:1 46:1	34·7 28·6 25·1 28·9	30·8 30·9	28·7 26·5 25·5 26·9	28·1 26·4 25·7 27·2	107·0 98·8 95·0 105·9	106·5 102·5 100·1 99·3	96:5 87:2 86:1 95:8	4·1 3·8 4·5 5·0	4·9 4·5 4·0 4·3	6·7 6·7 5·9 6·2	6.8 6.8 5.9 6.0	44·8 45·6 47·1 50·6	44:1 48:0 45:7 50:4	56·8 57·3 58·7 63·5	57·1 60·4 56·8 62·4	21·1 20·3 19·3 20·0	524 631 558 527	782 799 648 629	580 437 370 377
1928 IAN FEB IAR IPR IAY IUNE	43·4 41·7 47·0 41·0 42·7 45·8	44.2 47.4 47.9 43.1 44.3 46.6	31·1 31·1 34·0 28·5 29·9 26·5	28.6	25·6 25·3 29·2 26·8 25·7 26·2	25.9 25.3 26.5 26.4 25.4 26.9	100·4 98·8 110·5 96·8 99·4 99·4	95·7 102·0 108·2 99·1 102·6 105·0	90·1 87·2 99·2 85·8 87·6 87·9	4·3 4·5 4·2 3·8 4·0 3·8	5·1 5·6 4·9 4·7 4·6 4·2	5.8 6.0 6.3 5.3 6.2 6.1	5·8 6·0 6·3 5·7 5·9 6·4	48·3 45·5 53·4 45·0 46·4 48·0	46.3 45.5 51.4 47.9 47.6 51.5	59·7 57·2 65·0 55·3 58·6 59·5	58.5 58.3 63.7 59.5 60.1 63.7	20·7 20·1 20·2 19·3° 19·2° 18·2	506 532 535 526 534 526	574 731 712 675 690 664	} 342 } 279
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1929 AN EB AR PR UNE	49.6 40.0 42.1 42.6 44.2 39.6	50·5 47·0 42·9 44·9 45·9 40·3	39·1 27·0 28·5 30·9 29·2 24·5	31·9 25·7 28·1 31·5 31·1 28·3	26·8 23·1 27·2 30·2 29·2 26·4	27·1 23·9 24·7 29·7 28·9 27·1	116·5 90·9 98·6 104·1 103·4 91·5	110·5 97·3 96·5 106·5 106·8 96·7	106·7 80·5 88·6 93·8 93·0 81·9	4·2 4·0 3·8 5·0 4·6 3·9	5.0 5.1 4.4 6.0 5.2 4.4	6.6 5.6 6.6 6.8 7.8 6.1	6.7 5.8 6.6 7.3 7.4 6.4	53.8 44.3 47.0 47.1 53.4 38.4	51.7 45.9 45.2 50.2 54.7 41.1	66 · 9 55 · 7 58 · 6 60 · 2 67 · 4 49 · 9	65.7 58.6 57.4 64.8 68.9 53.5	21.0 21.5 22.2° 20.8 20.3° 19.9	509 520 533 571 591 614	673 775 841 773 773 812	362 } 428
ULY UG EPT CT OV EC	42:2 45:7 45:1 51:2 48:5 46:6	41.6 45.1 43.9 46.8 45.0 44.0	22·9 24·7 24·2 27·3 30·0 31·2	26.5 31.1 30.9 26.8 25.7 25.5	27.4 29.5 28.4 30.2 28.2 27.8	27.5 30.0 28.6 29.5 29.0 28.6	93.6 101.0 98.4 110.3 108.2 106.4	96.6 107.3 104.1 104.7 101.2 98.9	85.6 92.0 91.6 101.1 100.0 98.6	4·7 4·5 4·8 5·4 5·7 4·9	4.4 4.1 4.1 4.3 4.4 4.9	6.9 6.0 6.5 7.1 6.9 6.2	6.7 6.1 6.4 6.5 6.8 6.2	53·2 50·8 42·2 50·3 48·6 44·6	51:1 48:8 41:7 47:7 49:0 46:2	66.5 63.0 55.1 64.6 63.1 58.4	63·9 60·7 53·9 60·3 62·1 60·0	18·9 20·3° 20·4 20·6 21·3 20·9*	607 616 620 622 589 581	708 705 811 783 763 661	} 360 } 499
	42·9 37·3 40·0 36·7 39·6 37·7	43.7 43.8 40.8 58.7 41.1 38.3	24·0 24·1 20·7	24:6 22:9 23:8 21:0 24:6 23:6	28·0 25·8 28·1 25·6 27·7 24·5	28.2 26.6 25.6 25.3 27.4 25.1	101·8 88·2 93·4 83·9 91·0 83·4	97·3 94·4 91·4 85·9 93·7 87·8	93·7 79·6 85·8 76·1 82·0 75·6	4·6 3·7 4·0 3·6 3·8 3·2	5774.7 4.7 4.8 3	6·9 5·8 6·0 5·4 5·8 4·7	7·0 6·1 6·0 5·8 5·6 4·9	44.7 41.2 42.5 36.7 39.8 33.8	42.9 42.6 40.9 39.1 40.8 36.2	58:3 51:9 53:9 46:9 51:0 42:8	57.5 54.6 53.0 50.5 52.3 45.8	22:1 22:1 21:5 19:9° 19:3 18:0°	587 607 601 578 555 526	679 776 773 696 621 600	} 427 } 230
EPT CT OV	39.2 37.2 36.7 44.1 40.6 44.4	\$8.6 \$6.7 \$5.7 40.3 \$7.7	19·1 17·5 16·5 18·1 16·5	22.1 22.0 21.1 17.8 14.2 16.8	26·0 24·2 24·6 27·7 21·6	26.0 24.6 24.8 27.1 22.3 24.4	85·2 79·9 78·7 90·9 79·4 89·6	87.6 84.3 82.5 86.2 74.9 83.9	78·6 73·6 73·3 83·7 72·6 84·4	4·4 4·0 4·2 4·4 4·8 3·5	4·1 3·6 3·6 3·5 3·5 3·5	5·2 4·4 5·0 5·3 4·7 4·7	5·0 4·4 4·9 4·9 4·6 4·7	39·7 33·1 32·0 35·9 32·7 27·6	31.7 34.0 33.0	50.7 42.8 42.7 46.9 44.1 38.5	48.6 47.1 41.7 43.7 43.2 39.5	16.9 18.6° 18.2 18.7 19.8 18.7*	439 376 397 375 358 317	547 441 532 451 424 322	} 161 } 132
	36·2 30·0 32·6	35.3	13.3	14·6 12·6 14·9	20·4 19·5 22·3	20·7 20·2 20·3	75·6 63·6 70·7	73:3 68:9 69:0	69·6 57·8 65·2	3·7 2·8 3·0	4·4 3·6 3 ·5	3:7 3:8 4:1	3·8 4·0 4·1	28·7 24·0 25·6	24.9	37.6 31.8 34.0	37·3 33·7 3 3 ·5	18·4 19·2 18·2	305 320 323	361 486 458	} 3

IMPORTS & EXPORTS—
Declared values of imports (c.i.f.) into U.K., and exports (f.o.b.) of U.K. produce and manufacture. Not Imports = Total imports less exports of imported goods.—MONTHLY ACCOUNTS OF TRADE & NAVIGATION.

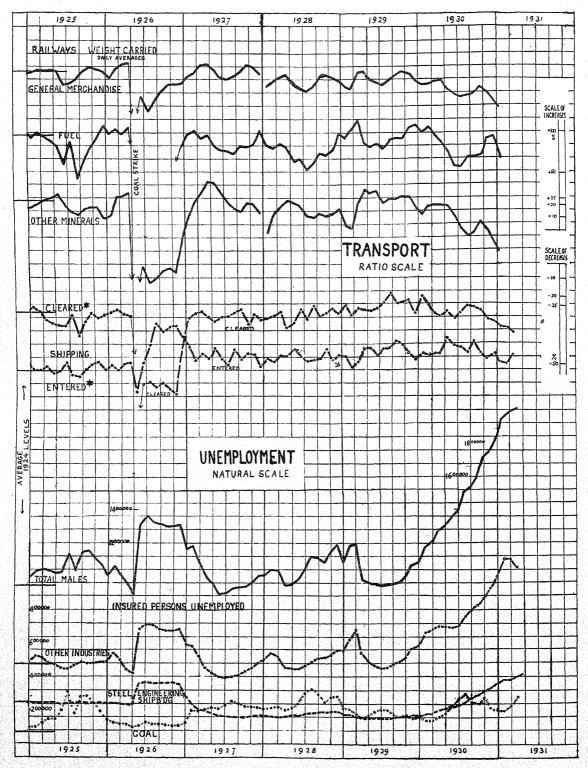
Total for 4 weeks ending approximately at end of month.—BOAID OF TRADE JOURNAL.

PIG 1RON, STEEL Output for standard four-week month based upon monthly fatures issued by the NATIONAL FEDERATION OF INGOTS & CASTINGSIRON AND STEEL MANUFACTUREES.

EMIPBUILDING—
SHIPPING.

* Excludes Christmas week, but includes New Year.

* NORMAL SEASONAL CHANGE REMOVED. °4 Weeks, excluding holiday week.



* NORMAL SEASONAL CHANGE REMCVED.

TRANSPORT.

UNEMPLOYMENT.

		SHIPPING			1	RAIL	WAYS				INSUR (Gı	ED P	ERSOI tain a	NS UN nd Nort	EMPL h Irela	OYED.		
	(with C	of Ships argoes). Leaving Ports.	Time Charter Rates. pp	Freight of Rates.	Stand	Weight	uge Ra	c. ilways. Re- ceipts.	Total.	Coal.	& Steel.	Engineering.	Shipbuilding.	Building and Construction.	Cotton and Wool.	§ Other Industries.	Fem:	Cotton and sele
	0000 tons	0000 tons	%	%_	1	len H 000 ton		Goods.	000	000	000 Iron	000 Emg	900 Ship	90 Buil O'Cons	000	000 S Ind	000	000 000
1924 Average	461 ×	544 ★	100	100	544	1743	551	8-89	941	72	52	116	78	99	35	344	263	62
1925 1st Qr. Av. 2nd ,, ,, 3rd ,, ,,	417 <i>464</i> 465 <i>463</i> 489 <i>450</i> 47 9 47 2	507 545 516 500 523 502 531 532	105 92 89 94	95 82 78 87	544 514 528 551	1733 1517 1491 1713	539 538 517 512	8·88 8·31 8·53 8·89	1034 1058 1107 1063	125 219 250 191	59 62 64 58	100 95 96 95	83 81 85 90	108 77 83 110	27 31 39 26	371 351 355 345	286 273 290 241	45 60 73 42
1926 st Qr. Av. 2nd ,, ,, 5rd ,, ,,	422 469 453 451 644 594 618 606	507 545 364 363 343 330 352 354	91 103 138	79 78 98 138	546 429 445 4 96	1778 667 336 1056	544 376 331 365	9·10 5·81 5·64 7·92	1003 1186 1314 1259	119 109 108 111	50 108 132 108	97 121 135 134	88 90 96 100	117 94 109 139	31 59 69 49	348 454 511 460	243 335 376 307	100 130 80
1927 st Qr. Av nd ,, ,, rd ,, ,, th ,, ,,	447 <i>515</i> 511 <i>509</i> 542 5 00 503 <i>4</i> 96	498 536 536 520 566 544 517 518	112 113 102 102	104 95 87 93	543 532 536 550	1754 1605 1595 1672	542 598 534 524	9·42 9·00 9·07 9·11	1082 913 929 990	201 220 243 217	41 39 41 49	97 75 67 69	73 54 48 46	134 82 92 147	29 24 29 31	356 296 295 303	236 175 194 196	4 3 4 4
1928 AN EB IARCH PRIL IAY UNE	458 495 416 483 474 505 484 504 528 529 529 502	493 523 475 632 538 546 486 491 550 607 570 669	96 92 90 90 90	86 83 84 84 81 83	500 510 552 480 519 488	1639 1609 1734 1445 1506 1483	452 506 559 501 564 543	8:60 8:78 9:48 8:07 8:65 8:31	1043 1026 944 945 979 1053	210 215 199 208 245 298	45 43 45 47 44 45	67 67 66 68 66 66	43 44 46 48 50 55	177 157 122 114 103 109	29 26 26 27 28 35	331 331 307 304 314 318	218 202 183 183 189 221	4
ULY UG EPT CT OV	544 487 534 489 516 492 563 530 481 489 506 508	549 519 597 575 547 532 570 540 549 558 516 541	90 91 98 103 116 119	83 87 87 92 98	488 505 510 574 540 475	1412 1481 1486 1636 1629 1625	514 508 494 537 528 483	8·19 8·41 8·50 9·34 8·98 8·19	1122 1114 1089 1148 1189 1088	324 295 250 279 281 212	51 51 48 47 47 47	67 72 72 70 74 70	57 57 62 67 66 61	114 116 127 141 159 163	49 44 43 39 37 34	341 348 349 354 367 353	255 261 266 255 264 246	
1929 AN EB IAR PRIL IAY UNE	467 505 391 469 457 488 516 537 538 538 536 508	541 574 462 535 552 559 551 558 601 554 575 563	113 109 108 108 108 104	96 95 89 88 86 81	522 448 515 532 525 484	1832 1711 1849 1613 1646 1566	492 424 519 584 596 562	9·13 8·26 9·27 8·95 8·94 8·39	1189 1197 980 960 956 942	212 170 147 175 198 203	43 42 36 37 37 37 39	76 72 64 64 65 61	56 52 50 46 46 46	206 252 141 116 104 100	37 38 34 39 37 38	388 393 350 332 325 315	277 257 224 222 221 221	
ULY LUG EPT OCT, IOV	596 534 588 539 589 562 583 549 513 521 494 497	618 585 648 625 596 580 622 589 586 595 517 542	109 116 119 104 96 88	83 83 84 77 77 70	524 513 523 579 536 477	1682 1688 1660 1811 1845 1756	578 560 548 606 573 495	9.05 8.82 8.88 9.69 9.33 8.24	947 951 961 1005 1061 1075	202 173 162 165 153 156	41 40 39 41 47 45	61 68 68 68 70 70	47 49 51 51 49 48	103 108 121 143 172 181	40 41 36 36 40 42	314 331 335 339 356 359	231 247 243 249 265 269	
1930 AN EB IAR PRIL IAY UNE	579 <i>579</i>	581 616 496 574 533 542 526 532 598 551 534 523	83 84 84 86 86 66	66 64 61 66 58 62	527 468 512 484 501 436	1892 1743 1755 1563 1621 1318	537 503 540 506 465 485	9·13 8·41 8·92 8·19 8·65 7·27	1173 1209 1267 1301 1357 1396	138 142 155 177 235 254	48 47 55 64 63 63	79 85 91 98 100 107	49 50 55 55 58 62	197 195 177 160 147 147	56 63 67 71 85 91	411 425 456 465 461 469	348 374 427 460 499 515	10 12 13 14 18 20
ULY UG EPT OV EC	557 524 496 504	571 541 589 567 579 563 581 551 511 519 489 513	71 71 79 — 64	61 70 68 62 68 71	483 440 474 515 449 438	1480 1434 1529 1603 1640	485 413 456 512 439	8·20 7·54 8·17 8·76 8·18 8·11	1519 1546 1605 1735 1771 1847	301 252 246 282 225 210	71 80 83 91 98 109	114 125 137 151 158 173	65 70 76 82 86 92	160 166 178 200 232 246	102 105 103 96 96 115	499 532 552 581 610 647	551 573 584 584 598 653	222112
1931 AN, EB IAR	451 <i>487</i> 401 <i>481</i>	469 497 423 490 466 473	64 59	70 65		1533		7.99	1972 2017 2028	208 239 292	99 99 102	178 187 192	95 101 107	288 274 247	112 104 90	697 714 701	691 680 638	2 2 1

† Increase on pre-war rates raised from approx. 50% to 60% on Feb. 1st, 1927.

! Excluding any disqualified for benefit by trade dispute.

* NORMAL SEASONAL CHANGE REMOVED. § Excludes Commerce, etc.

TRANSPORT: SHIPPING—ENTERED AND CLEARED SHIPPING FREIGHTS-RAILWAY TRAFFIC—

RECEIPTS

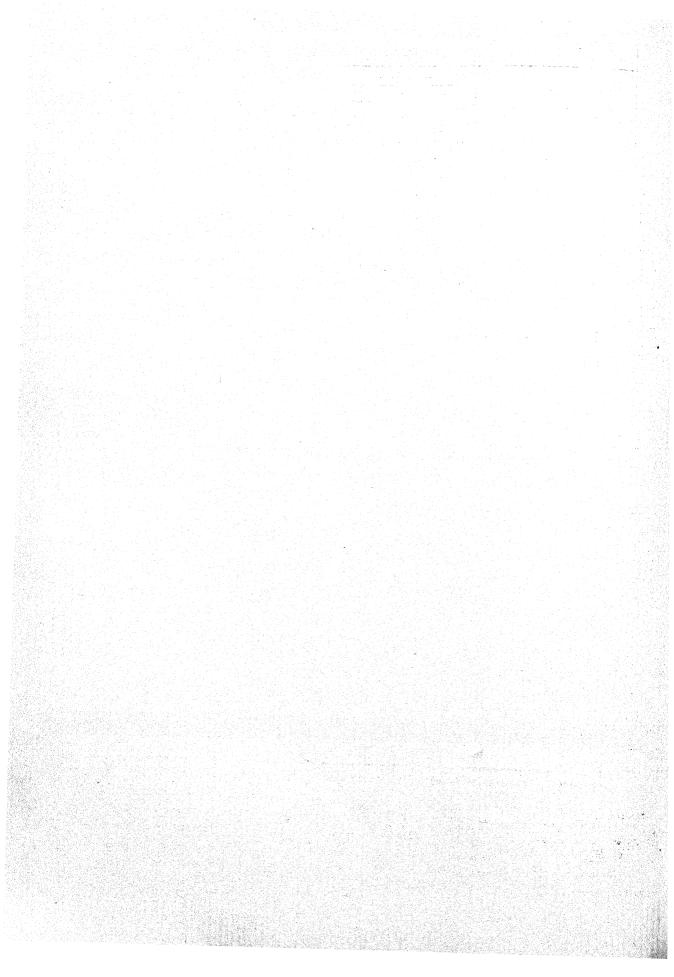
UNEMPLOYMENT-INSURED PERSONS- Tonnage of British and Foreign vessels entering and leaving British ports with cargoes during month.—BOARD OF TRADE MONTHLY ACCOUNTS OF TRADE & NAVIGATION. Chamber of Shipping index numbers as published by "The Statist."-PREPARED BY DR. ISSERLIS.

Tonnage of goods carried on the Railways of Great Britain during the month, excluding free-hauled.

Monthly Receipts for goods traffic, excluding cost of collection and delivery this January, 1928, then excluding receipts for collection and delivery.—MINISTRY OF TRANSPORT.

Number of books lodged at Labour Exchanges on or about 25th of month.

MINISTRY OF LABOUR GAZETTE



ROYAL ECONOMIC SOCIETY

ISSUED BY ARRANGEMENT WITH THE LONDON AND CAMBRIDGE ECONOMIC SERVICE

MEMORANDUM No. 31

REPORT ON CURRENT ECONOMIC CONDITIONS

July, 1931

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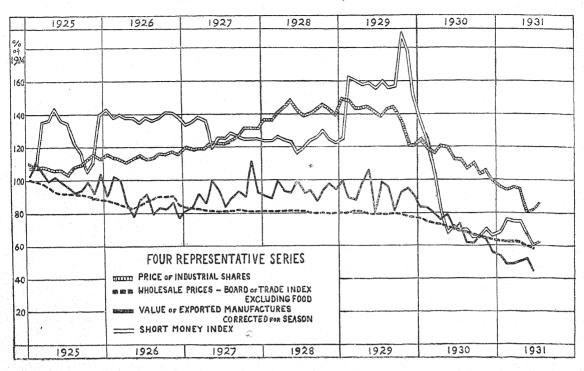
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Page	17—Sensitive Index, July + 8·1	not +	8.5
Page	19—Wages, July		97
Page	19—U.S.A. Wholesale Index, May not available	June '	71-4



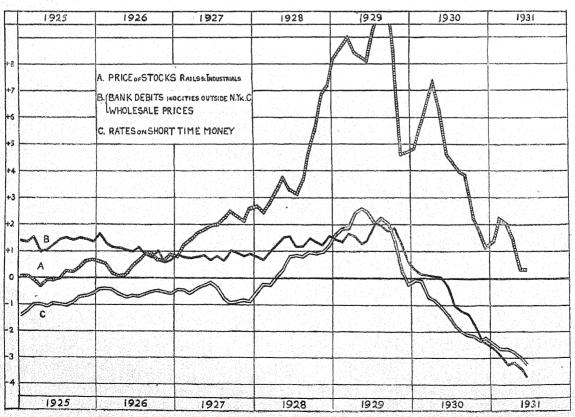
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INDEX CHART, U.K.



HARVARD INDEX CHART, U.S.A.



THE GENERAL BUSINESS POSITION.

UNITED KINGDOM.

July 21st, 1931.

Many of the statistics for June, especially those relating to external trade, production and unemployment, are prior to or not influenced by the proposal for a War Debts moratorium in international debt payments made by President Hoover on June 22. There was some further falling off in iron and steel production, a slight increase in unemployment, and commodity prices were nearly stationary at a point fractionally lower than in April. Visible stocks of important materials and food also showed very little change. In brief, the situation was as described last month, one of stagnation.

President Hoover's proposal had an immediate effect on security prices, which rose sharply, whether at variable or fixed interest. There was also an immediate upward movement in some commodity prices. Since the end of June there has been a reaction, though the security price index remains well above its mid-June level. The whole situation has

been altered by the collapse of the German currency exchange, and is dominated at the moment as much by political as by economic considerations. Under these circumstances, and with the crisis still undetermined, it is impossible to make a reasoned diagnosis or forecast. If the present conference breaks down, undoubtedly the financial situation will be very serious. But after a successful issue, at best the general condition is not likely to show any great advance on that which was believed to exist before the German situation was realized, for the material grounds of the depression will not have changed substantially. It may be that the serious blow that confidence in international credit has already received, will militate against recovery. In any case there can be no spectacular improvement in employment or production in the immediate future and any fluctuation that may occur in commodity prices should be interpreted with very great caution.

UNITED STATES. HARVARD FORECAST. {By Cable}

July 18th, 1931.

The complete June record for business was in some respects less favourable than the early weeks of the month had suggested. While construction awards after seasonal adjustment saw moderate upturn, freight loadings and manufacture along with some other special indexes declined. Bank debits outside New York City, which give a comprehensive index of the dollar volume of business, also decreased though continuing above the low level of March. The upward movement of commodity prices was the steadiest for several months even though the average remained below the figure for May.

While the second quarter of the year has not been a period of consistent advance, yet when compared with the preceding period it appears to have seen the beginnings of business recovery although additional months will be needed to establish the fact beyond doubt. The great decline has been replaced by small movements at a low level, tending on the whole upward. The partial setbacks of May and June are to be connected with the stock market decline and with conditions abroad, and will probably prove temporary, though expansion may be delayed if European conditions continue threatening.

UNITED STATES

(Harvard Economic Society).

(Extracts from letter of July 3rd, 1931.)

THE WORLD'S EXCHANGES AND THE MORATORIUM.

PRESIDENT Hoover's proposal for a moratorium directs attention forcibly to the world's exchanges. The principal facts are familiar, but their significance is seldom appreciated. The War suddenly turned the United States from a debtor into a creditor nation, and left most European belligerents heavily in debt to each other as well as to this country. Germany emerged as debtor for sums which, although successively reduced, still appear larger than she can pay.

During the past twelve years no permanent solution has been found. The balance due to the United States annually on income account beyond what our debtors can pay currently in commodities and services remains about as large as in 1919; and the prospect of Germany establishing the requisite outward flow of commodities and services is as remote as ever. Under these conditions gold tends naturally to flow to creditor countries like the United States and France, except as they make foreign investments which virtually amount to lending foreign debtors the money with which to pay current accounts. The flow of gold to or from the United States is thus of great interest.

The past ten years can be divided into six periods. During the first period (until the end of April, 1924) imports of gold were large and no month showed an excess of exports. Most of the world was off the gold basis, War debts had not been funded and some countries were still inflating currency. Commodity prices rose from the slump level of 1921 and then showed a moderate decline, probably owing to the firm money policy adopted early in 1923, to check what

were regarded as inflationary movements. There was no consistent relation between gold movements and price changes.

The second period was from May, 1924, to February, 1925. About the first date reserve policy was changed. Easy money checked the gold inflow and within eight months turned it into an outflow. Commodity prices rose and brought price levels nearer those in Great Britain, thereby facilitating the return to the gold standard in that country.

In March, 1925, New York rediscount rate was raised and gold again flowed in. Europe generally, succeeded in returning to the gold standard during this period and the position in the United States was characterised by stable discount rates. Prices were comparatively stable for a year and then came a year and a half of gradual decline.

The fourth period began in August, 1927, when the Federal Reserve again adopted an easy money policy. Immediately gold imports ceased and exports were heavy for 10 months, while commodity prices rose moderately.

Early in 1928 a firm money policy was established, and the fifth period begins when this policy became effective in May. Money rates rose, bond prices declined, and the export of capital was checked. Except in two months, gold stocks rose continuously until October, 1929, while commodity prices turned gradually downward.

The last period begins with the collapse of stock prices and the return to easy money. The last two months of 1929 saw a considerable gold export, but except for two months there has been a

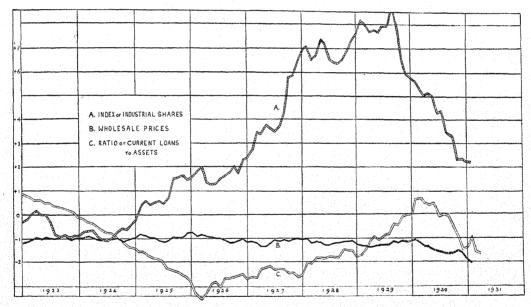
continual heavy inflow since. Money rates have fallen to record low levels, but cheap money has neither stopped gold imports nor checked the decline in commodity prices.

The explanation of this failure of easy money to produce gold exports and price revival is that confidence has been so impaired that easy money has not led to a capital export such as provided the means by which our foreign debtors from 1924 to 1929 were enabled to pay us

what they owed on income account. Lending debtors money with which to pay interest may be justifiable as a temporary measure, but is no permanent solution of unbalanced international or other accounts. It affords but temporary relief, and unless accompanied by permanent remedies makes the final reckoning worse. Yet it is the only method devised since 1919, and when it was discontinued the recession in business developed into a world-wide depression.

CANADA.

Information communicated by the Canadian Economic Service, McMaster University Hamilton, Ontario.



THERE can be little doubt that the whole structure of business conditions during June improved even before President Hoover's momentous announcement of the proposed moratorium on international debt payments. It will be observed that the averages of stock exchange prices were slowly but quite perceptibly moving during the first two weeks of the month to be followed by a slight setback in the week ending June 19. During the last week the rise was very pronounced and on June 26 the average of 92 stocks was a little over 12% higher

than on May 29. A study of the detailed classes of securities shows that the rise was shared by all classes of securities.

It would be very unwise to make any definite predictions as to the future course of the market, but it can at least be said that the present juncture does afford an opportunity for a reversal of the trend of pure pessimism that has ruled the market for so long. The present low prices of many first-class securities are as absurd as their high prices two years ago. It is obvious that many stocks of the highest character are selling at bankrupt prices,

simply because there is not sufficient support in the market to buy them at a reasonable figure. While, therefore, it is proper to regard any such sudden "flare up" on the exchanges with suspicion, yet it is by no means unreasonable to admit the possibility of the new arrangements for debt repayment, provided, of course, they are ratified, as giving that one little impetus needed to start the machine moving once more from the mire in which it has so long been embedded.

The index number of wholesale prices used in this service remained stationary during June at 128'3 as compared with 128'9 for May. This compares with 153'5 for June, 1930. The sub-index of 20 foodstuffs remained unchanged during June

at 141'3 compared with 175'2 a year earlier, while the index of manufacturers' goods declined from 116'0 in May to 116'3 at the end of June.

The announcement by Mr. Bennett in the House of Commons of what is really a state of national emergency arising from the drought in a large area of the western provinces merely confirms officially what was well known by those who were in close touch with the situation in the West. As was remarked last autumn in this service, the repercussion on the East of distressed conditions in the West must be serious. There is now no doubt that Canada is in for a hard winter, aggravated employment conditions and an appreciable amount of real distress.

RECENT MOVEMENTS OF SUBSIDIARY SERIES.

THE UNITED KINGDOM.

FINANCE.—Between June 15th and the end of June the index of securities rose from 82 to 90, and the "sensitive index" nearly 13% in consequence of Hoover's proposal; in the following fortnight the former fell to 86 and the latter by 3.7% because of the delay in giving the proposal full effect and the continued political and financial uncertainty. The index of fixed interest securities rose from 104.6 to 106.3 during the latter half of June, but has since fallen to 101.5. Meanwhile, the Bank Rate is unchanged and the short money index has moved little.

Bankers' Advances again fell in June and are at practically the same level as the beginning of the year. The ratio of advances to deposits (52.1%) is higher than in last Autumn.

Bankers' Town Clearings increased in June more than is seasonally to be expected, but were nearly 10% lower than a year ago. Country and Provincial Clearings fell to about the level of last September. New Capital Issues were small in June.

GOLD MOVEMENTS.—The rapid inflow of gold continued during June and the

first two weeks of July. However, owing to the exchange weakness which developed towards the end of June exports increased in volume. Thus the net influx figure, which stood at over £14½ Mn. at June 30th, rose to over £17½ Mn. at July 15th. Then, as French demands increased, £7 Mn. net were lost in two days. The gross efflux in the week following the collapse of the mark exchange, July 13th, was over £14 Mn., the bulk of which was taken by France, earmarking accounting for some £4 Mn. GOLD MOVEMENTS TO AND FROM THE BANK OF ENGLAND. £000.

	1927	1928	1929	1930	1931
January February March April May July August Sept'mber October November December	- 16 - 1180 + 401 + 2211 - 1545 - 1140 + 699 - 586 - 770 + 671 - 1212 + 1252	+ 3945 + 21 - 149 + 2403 + 2320 + 8466 + 2106 + 1244 - 4762 - 5233 - 5088 - 6594		+3953 +1071 +4794 +7126 -6628 + 73 -4438 +2458 - 548 +4770 -5020 -8004	- 7549 + 622 + 2766 + 2684 + 4712 +11415 - 10544*
		— 1321	— 8228	— 393	+ 4105*

* To July 21st.

PRICES AND WAGES.—Up to June 22nd, the date of the announcement of

Hoover's proposal, wholesale prices were at a minimum, somewhat lower than in May, during which month there had been a fall. After June 22nd there was a rise in some commodities. The Statist index for materials at the end of June was 2% higher than at the end of May; the Board of Trade average for the month was 1.7% lower than that for May. For food prices both index numbers remained unchanged, but this resulted from a balance of a fall in cereals and meat and a rise in the price of other foods. Retail food prices increased a little with the change over to the new season's potatoes. It is possible that during the last three months there has been some cheapening of clothing not reflected in the indexnumber.

Though there have been some reductions of wages, they have not been considerable, and have not affected the index-number. A number of wage changes have been arranged to take place during the coming weeks, but none of much numerical importance.

TRADE AND OUTPUT. — Imports of materials diminished less in June than is normally to be expected at the time of year; in fact when the seasonal movement is eliminated June appears to be the highest month this year. The decrease over twelve months is, however, considerably greater than can be attributed to the fall of prices.

VALUE OF RETAINED IMPORTS OF MATERIALS, excluding Rubber. £Mn.

						O			
	192	9		1	1930			1931	
	April	May	June	April	May	June	April	May	June
Cotton	5.8	6.1	3.4	2.8	3.6	2.3	1.9	1.7	1.9
Wool	6.0	5.0	2.6	2.5	3.1	1.6	3.2	3.0	1.5
Non-fer									
Metals	1.6	1.7	1.7	1.2	1.3	1.1	0.6	0.8	0.6
Wood	1.7	2.5	3.6	1.9	2.7	4.4	1.1	1.4	2.7
Others	8.7	6.9	7.6	7:3	6.8	6.0	5.0	4.6	4.3
Total	23.8	22.2	18.2	15.7	17:5	15.4	12.1	11.5	11.0

Exports of materials (principally coal) had the same value in June as in the three preceding months.

Exports of manufactured goods have again fallen off in most of the important categories, and were lower in June than at any date in recent experience. In fact, to take pre-war figures, in every

month from January, 1906, to July, 1914, exports of manufactures were as high or higher than in June, 1931.

EXPORTS OF BRITISH MANUFACTURES. & MN.

	1	1929)	1	1930)	1	1931	
	Apr.	Мау	June	Apr	. May	June	Apr.	May	June
Iron, Steel and Manufactures	5.2	6.7	4.8	4.2	4.9	4.1	2.8	0.0	2.4
Electrical Goods		1.3	0.9	0.9	1.0	4·1 0·9	0.7	2·6	0.6
Machinery	4.2	5.5	3.8	3.9	4.5	3.7	2.8	2.9	2.4
Vehicles	5.8	4.9	3.0	4.9	5.0	5.3	2.2	4.4	2.2
Cotton Wool	3.4	12·3 4·2	8·8 3·5	7·5 2·6	7·8 2·4	6·2 2·2	4.5	4.6 1.6	4.3
Other Textiles			2.2	1.6	2.0	1.6	1.1	1.2	1.0
Apparel	5.0	2.0	1.4	1.7	;	1.5	11	1.0	0.8
Others	11.5	13.9	10.0	9:4	10.8	8.6	7.1	7.1	6.3
	47.1	53.4	38.4	36.7	39.8	33.8	24.3	26.0	21.7

The output of coal, of iron, and of steel fell off in June.

Unemployment.—The only important changes in the numbers of insured persons unemployed up to June 22nd were an increase of 11,000 unemployed in the motor vehicles, etc., industries (increase from 17·1 to 21·5%), and an increase from 100,000 to 180,000 in the number of temporarily stopped coal miners. These figures do not match very well with the following from the Board of Trade Journal, July 9th, 1931.

UNITED KINGDOM COAL OUTPUT, &c.

			T GISORS
Wee	k	Production	employed
endir	g	000 tons.	000's.
May	ັງ	 4574	 866
.,,	16	 4661	 863
	23	 4570	 861
•••	30	 2583	 855
June	6	 4381	 852
,,	13	 4332	 848
**	20	 4217	 845
,,	27	 3936	 840
,,,			

The actual decline in employment in the coalfields is difficult to measure.

There was little change also between June 23rd and July 6th. Summary figures are as follows:—

NUMBER OF PERSONS ON THE LIVE REGISTER OF THE LABOUR EXCHANGES, 000s.

(Excluding persons in casual employment.)

	Ŋ	Iales.		Fema	les.	
	Wholly	Temporarily	Whol		emporar	
1931	Unemployed	l. Stopped.	Unemp	oloyed.	Stoppe	d.
May 18th	1395	396	44		155	
June 15th	1411	474	43		183	
,, 22nd		485	43		177	
,, 29th	1413	512	43		192	
July 6th	1412	476	43		199	
,, 13th	1421	480	43	7	192	

Thus the number wholly unemployed remains stationary, while there are cases of increase in the number temporarily stopped.

FINANCE, TRADE AND PRODUCTION IN THE UNITED KINGDOM IN THE SECOND QUARTER OF 1931.

PINANCE.—The index-number of prices of securities fell rapidly during the first six weeks of the second quarter of this year, from 95.5 at the end of March to 80 on May 15th; after that it moved little up to the date of the announcement of Hoover's proposal. On the other hand the index number of fixed interest securities rose without interruption from 99.3 at the end of March to 106.3 at the end of June.

The Bank Rate was reduced from 3 to $2\frac{1}{2}\%$ on May 14th, and during the three months the short money index fell from 77 to 62, the lowest reading being 60 in mid June. The net import of bullion and specie in the quarter was £20 Mn. approx., while in the previous quarter there had been a net export of £8 Mn.

New Capital Issues for the United Kingdom were abnormally low throughout the quarter, while those for overseas were also small.

The average of Bankers' Advances for the three months was a trifle greater than in the first quarter of the year, but they diminished from April to June. The ratio of advances to deposits was higher than during the autumn and winter months.

Bankers' Town Clearings were lower than in the first quarter, but the fall was less than is seasonably to be expected. Country and provincial clearings fell, but not quite so much as last year; the aggregate figures are 1930, 1st quarter £1156 Mn., 2nd quarter £1075 Mn.; 1931, 1st quarter £1016 Mn., 2nd quarter £964 Mn. These figures, relating in part to transactions in commodities, should be considered in relation to the fall in commodity prices.

PRICES AND WAGES.—Wholesale commodity prices after falling throughout the year 1930 were nearly stationary for the first three months of 1931. The fall was resumed during the second quarter of the year, though it was not general or uniform for all commodities. In all the fall in three months was about 2½%, and the whole reduction from October, 1929, to the lowest point in mid-June was above 25%, that for materials being very slightly greater than for food.

Retail food prices have hardly changed during the quarter and the movements of the index throughout the year have been little more than is common to the successive seasons. Over the twelve months from July 1, 1930, to July 1, 1931, the fall has been 10%, which corresponds with unusual closeness to the fall (11%) in the wholesale food price index number of the Board of Trade.

Though there have been reductions of wages in a number of industries, affecting in all about two million workers in the first six months of the year, according to the Ministry of Labour's account, they have in most cases, been of only small amounts. The weekly average reduction of those affected is computed at 2s. 3d., or about 3% on the wages of those affected, and less than 1% for all workpeople. The index number published monthly in this Bulletin, which depends only on a limited number of selected industries, shows a fall of 1½% in the six months.

PRODUCTION AND TRADE.—The index number of production, of which details are given on page 15, is 20% lower for the second quarter of 1931 than a year before, and 28% lower than in 1929. The reduction in the past quarter is chiefly in the iron and steel group, and over the year the same group is dominant. For the actual measurement therefore, a great deal depends on the weight attached to this group and to the accuracy of

its index, and in fact data relating to engineering are very incomplete. The figures of the number of insured persons at work, given below, suggest that even after allowance for part time work, the whole output of industry has not fallen so much as the Index of Production suggests.

The value of exports of British manufactured goods was 9% less in the second than in the first quarter of 1931. The fall since 1930 is very great, the value exported being only two thirds of that last year, and only a relatively small part of this is accounted for by the reduction of prices of finished goods. The reduction has been general in most categories (See Table B. p. 12), and to many countries (p. 13).

In imports the quantity of food imported has changed little, though of course the value is less than last year. There has been a considerable reduction in the quantity as well as in the value of imported materials; most categories are affected, but the importation of wool was greater in the second quarter of 1931 than in that of 1930. The value of imports of so called manufactured goods has diminished less than that of materials.

The excess of the value of all imports of merchandise over exports was £94 Mn. in the second quarter of 1931, as compared with £92 Mn. a year earlier; but owing to the import of bullion this year the net "adverse" balances were £114 Mn. and £94 Mn.

UNEMPLOYMENT. — The numbers of unemployed persons have altered little

during the past three months; a slight increase in the temporarily stopped has outbalanced a yet slighter decrease in the wholly unemployed. Last year during the corresponding months there was some increase in both categories.

INSURED PERSONS UNEMPLOYED, GREAT BRITAIN AND NORTHERN IRELAND.

	Males	Females	
	Te	m- Te	em-
			arily
		52 269 15	
June 23rd .	. 1031 36	35 311 20)5
1931 March 23rd .	. 1583 44	45 470 16	8
June 22nd .	1581 48	37 457 18	12
Increase in 3 months:	all—		
1930	15 1	13 42 4	7
1931	2 .	4213 1	4
Excluding Coal-			
1030	16	46	-
1931	24 -1	21	

The changes have been similar in all the local divisions. As compared with last year the North-Western Division is not quite so far down the scale. The figures may be re-tabulated as follows:—

PERCENTAGE OF INSURED PERSONS UNEMPLOYED.

		V., N.E., N.W., Scotland Wales, N. Ireland.
	Midlands.	wates, iv. fremud.
1930 March 24th	9.4	18.5
June 23rd	9.9	21.5
1931 March 23rd	15.1	27.8
June 22nd	15.0	28.6

The southern half of England retains its advantage over the rest, but has during the year suffered a proportionate increase in unemployment.

The average total number of insured persons in Great Britain in employment is given in the *Ministry of Labour Gazette* as 10,021,000 in the first quarter of 1930, 9,868,000 in the second quarter, and 9,207,000 and 9,336,000 in the first two quarters of 1931.

SUMMARY OF QUARTERLY STATISTICS.

			Managara Managara Managara Managara Managara M	PROPRESE DE LA COMPENSA DE LA COMPE			communication and	national contract of the contr		mining in past and in the company		-
	19	28		19	29			19	30		19	31
TOTALS.*	3rd Qr.	4th Qr.	lst Qr.	2nd Qr.	3rd Qr.	4th Qr.	lst Qr.	2nd Qr.	3rd Qr.	4th Qr.	1st Qr.	2nd Qr.
BANK CLEARINGS: Town (ex Metropolitan) Country Provincial (11 Towns)	£ Mn. 9371 736 3 91	£ Mn. 10003 776 420	£ Mn. 10316 764 427	£ Mn. 9514 769 387	£ Mn. 9941 757 386	£ Mn. 10165 790 399	£ Mn. 10292 771 385	£ Mn. 9782 742 333	£ Mn. 9529 720 311	£ Mn. 9180 730 319	£ Mn. 9079 697 319	£ Mr 8748 677 287
BANKERS' ADVANCES: Average for Quarter NEW CAPITAL ISSUES in Gt. Britsin:	932	942	968	980	979	971	973	962	938	920	913	917
All	66·6 37·2	93·3 64·7	114·2 69·0	81·3 55·1	28·4 17·5	29·7 17·8	69·5 36·3	72·4 37·4	28·0 19·0	66·3 34·7	45·4 21·2	25 6
Food, Drink and Tobacco Materials:	122	135	125	120	126	139	114	108	107	123	93	9
Partly Manufactured Cotton Other Total Wholly Manufactured Goods Total Retained Imports	11 12 46 69 61 257	12 26 45 83 61 282	11 25 53 89 60 276	13 15 53 80 66 268	12 9 53 74 65 268	14 24 54 92 65 299	11 16 51 78 64 259	10 9 43 62 65 233	9 5 42 56 60 225	9 12 35 57 58 240	8 7 32 47 50 192	29 4: 50 19
EXPORTS, BRITISH: Materials Manufactures—Cotton Other Total British Exports	16 36 109 180	19 36 111 188	19 38 107 181	21 33 107 178	19 34 112 185	20 31 113 186	19 30 98 164	16 22 88 141	15 19 86 136	15 16 80 129	12 15 63 103	1 1 5 9
EXCESS OF IMPORTS: Goods and Bullion	80	82	92	93	65	125	106	94	87	106	82	11
TONNAGE OF SHIPS (with cargoes): Entered from abroad Cleared for abroad	0000 1595 1692	Tons 1549 1636	1316 1553	0000 1589 1728	Tons 1775 1863	1590 1723	1392 1610	0000 1659 1656	Tons 1756 1738	1565 1581	0000 1329 1358	Tons 152
PRODUCTION: Coal (15 weeks) Pig-iron (3 months) Steel	5638 156	Tons 6154 163 220	6813 167 240	0000 6265 192 248	Tons 6284 202 241	6701 196 237	7014 192 237	0000 5911 180 199	Tons 5634 133 165	6164 115 128	0000 5941 101 139	Tons 547
Shipbuilding (commenced)		Tons 432	362		Tons 360	499	427		Tons 161	132		Tons 2
INDEX OF PRODUCTION: Bulletin % of 1924 Board of Trade ,,	95·4 100·2	105·2 108·4	108·3 110·6	111.0	108·2 110·7	114·8 114·0	109.6	100.9	90.7	92.7	85·1 95·4	80

^{*} Except Bankers' Advances for which mean weekly averages are given.

INDEX NUMBERS.	Date in	19	28		19	29			193	30		19:	31
Percentage of 1924 level.	Quarter	órd Qr.	4th Qr.	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	lst Qr.	2nd Qr.	3rd Qr.	4tn Qr.	lst Qr.	2nd Qr.
PRICES OF COMMODITIES— General—Board of Trade Statist	Last month Last day	82·8 84	83·1 85	84·4 87	81 [.] 6	81·7 81	79·7 78·5	74·9 74	72 [.] 6 69	69·5 65	65·5 62·5	63·7 61·5	6 2·1 59
Materials—Board of Trade Statist	Last month Last day	79·8 84	80·0 84	81·2 87	79·1 80·5	79·5 79· 5	77·1 76	73·4 72	70·4 66·5	67·0 62·5	63·3 59	62·1 58·5	59·1 56
Food—Board of Trade Statist	Last month Last day	88·7 84	89·1 85	90·3 86	86·2 83·5	85·8 83	84·6 81	77·7 76	76·6 72·5	74·4 70	69·8 67·5	66·8 66	68·1 65
Retail—Food	Last day	92 95	93 95	88 92·5	87·5 92	91·5 94·5	92 9 5	84 90	83 88·5	84 89	81 87·5	76 84	76 84
Wage Rates	Fortnight after end	99.5	99.5	99.5	99.5	99	99	98.5	981	984	984	97	
PRICES OF SECURITIES—													
Industrials Fixed interest	35 35	146 98·2	149 101·1	143 97*9	136 96·0	135 93·9	124 95·5	120 10 0 -3	112 99·7	103	96 103·5	94 100·2	86 101:
SHORT MONEY	,, ,,	129	125	158	160	189	136	82	69	65	68	75	62

IRON AND STEEL STATISTICS FOR U.K. 000 tons.

		F	'IG-IRC	N.†				CRUD	e stee	L.	EXPORTS OF IRON & STEEL.		
-		Produc- tion	+ Im- ports	- Ex- ports	=Home Cons'mp- tion	% Imports to Home Consump- tion	Pro- duction	*Im- ports	Home Con- sumption	% Imports to Home Con- sumption	Semi- Finished	Finished	
1913	Qrly. aver'ge	2565	46	236	2375	1.9	1916	215	2131	10	209	751	
1923	٠,,	1860	27	223	1664	1.6	2122	138	2263	6.1	540	1153	
1924	1 2 3 4	1918 1877 1774 1750	70 89 56 92	125 196 121 158	1863 1770 1709 1684	3·8 5·0 3·3 5·5	2279 2173 1862 1902	228 296 256 302	2507 2469 2118 2204	9·1 12·0 12·1 13·7	} 481 460	1212 1081	
1925	1 2 3 4	1724 1655 1386 1471	88 67 66 65	163 135 100 162	1649 1587 1352 1374	5·3 4·2 4·9 4·8	1942 1835 1708 1913	286 290 276 306	2228 2125 1984 2219	12·8 13·6 13·9 13·8	181 179 188 204	589 572 576 662	
1926	1 2 3 4	1604 670 44 124	75 57 111 249	148 83 60 22	1531 644 95 351	4·9 — —	2128 741 180 511	296 277 444 544	2424 1018 624 1055	12:2	227 170 98 86	704 562 408 409	
1927	1 2 3 4	1688 2051 1833 1731	225 187 114 83	45 85 93 108	1868 2153 1854 1706	8·7 6·1 4·9	2507 2482 2107 2003	562 391 356 373	3069 2873 2463 2376	13:6 14:4 15:7	213 298 252 241	564 735 768 782	
1928	1 2 3 4	1704 1718 1561 1628	53 27 14 26	104 116 101 134	1653 1629 1474 1520	3·2 1·6 ·9 1·7	2184 2105 2034 2202	329 287 252 277	2513 2392 2286 2479	13·1 12·0 11·0 11·2	219 246 243 272	734 702 652 720	
1929	1 2 3 4	1674 1924 2018 1963	30 29 55 39	143 156 167 79	1561 1797 1906 1923	1·9 1·6 8·7 2·0	2404 2483 2406 2366	200 268 252 270	2604 2751 2658 2636	7:6 9:7 9:5 10:2	265 237 250 258	737 692 653 716	
1930	1 2 3 4	1923 1797 1328 1149	72 68 109 62	107 84 87 39	1888 1781 1350 1172	3·8 3·8 8·1 5·3	2374 1988 1653 1284	334 245 210 300	2708 2233 1863 1584	12·3 10·9 11·3 18·9	225 159 150 139	647 567 506 426	
1931	1 2	1012 993	67 83	48 63	1031 1013	6·5 8·2	1389 1261	227 2 94	1616 1555	14·0 18·9	99 98	331 355	
							i de la constanti de la consta						

† Inc. Ferrous Alloys.

*Blooms, Billets, Sheet and Tinplate Bars.

TABLE A. NET IMPORTS OF RAW MATERIALS (EXCLUDING RUBBER) AND CERTAIN PARTLY MANUFACTURED GOODS. DECLARED VALUES. £ Mn.

	1924. 1928. Quarterly Average. Quarters. 3			1		9 29 . irters. 3	4	1980. Quarters. 1 2 3 4				1931. Quarters, 1 2	
Pig iron, etc Copper, tin, lead, zinc Yarns Leather	1:8 5:4 1:8 2:9	1·1 4·5 1·6 3·7	1:3 5:6 1:9 3:5	1·1 5·0 1·8 2·9	1·4 6·2 2·1 3·1	1·3 5·4 2·0 2·9	1·4 5·8 2·1 4·8	1.6 5.0 1.8 3.0	1·2 4·6 1·5 2·9	1·2 3·9 1·3 2·8	1·3 3·4 1·6 3·1	1.0 3.1 1.3 2.3	.9 3.4 1.2 2.5
Minerals (non-metals) Iron Ore Other Metals Wood Oil Seeds, &c Hides Paper Materials Silk	1·3 2·1 3·7 12·6 12·1 2·0 2·9	1:3 1:1 3:7 15:0 10:8 3:9 2:5	1·3 1·1 4·4 12·6 9·4 1·4 3·0	1·2 1·4 3·9 5·9 11·7 1·2 2·5	1·3 1·5 5·1 7·8 10·7 ·9 3·4 ·4	1.5 1.8 3.7 17.4 9.7 2.9 3.4	1·4 1·8 3·9 13·9 9·8 2·5 3·7	1.3 1.7 3.7 6.9 9.1 2.7 2.9	1.4 1.6 3.6 9.0 9.2 .8 3.2	1·2 1·0 2·5 15·4 7·3 1·9 3·0	1·0 ·9 2·3 11·0 6·8 ·9 3·0 ·4	1·0 ·7 1·8 4·2 6·6 ·9 2·3 ·4	1.0 .7 2.0 5.4 6.9 .0 2.0
Other Textiles (except Cotton and Wool) Cotton Wool	3·4 27·5 10·9	1.8 11.6 2.9	3·4 26·5 3·9	4·9 25·2 14·1	3·3 15·4 13·5	2·0 8·6 4·5	4·0 23·6 6·1	4·0 16·3 12·5	2·3 8·7 7·3	1·1 4·6 4·0	1·4 12·0 4·6	1.8 7.3 8.8	1.6 5.5 8.0
Total, both groups and miscellaneous	92.8	68.7	82.7	85.8	78:5	70.3	88-2	75.7	59 ·6	54.3	56.0	45.5	42.9
Total. excl. cotton and wool	54-4	54.2	52.3	46.5	49:6	57:2	58.5	46· 9	43 •∂	45.7	39.4	29.4	29:

	1924 Qrly. Av.	1928 Quarters. 3 4		29 rters. 3 4			1930 arters. 3	4	1931 Quarte 1	
Coke Earthenware Iron & Steel Other Metals Cutlery Electrical Goods Machinery Wood Cotton Wool Silk Other Textiles Apparel Chemicals Cils Leather Paper Vehicles Rubber	1.6 3.2 18.5 18.5 18.5 18.5 19.2 2.7 11.2 49.8 17.0 6.9 6.9 6.7 1.8 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7	9 11 34 3.4 15.7 17.6 3.8 3.7 22 2.5 2.8 2.9 12.7 13.6 .6 36.3 16.0 12.7 .6 7.5 7.2 6.6 6.0 6.27 2.3 2.1 2.2 2.1 2.2 2.1 2.8 2.9	1·1 8 3·1 8 17·3 32·9 4·4 11·1 2·1 6·5 13·3 5·4 6·6 3·5 14·8 16·7 6·7 2·6 6·3 3·3 6·4 13·5 2·1 2·1 1·7 1·9 2·2 2·3* 13·7* 8†		1 2 3 1 7 7 7 7 2 1 3 3	10 6 333 3:1 554 133 377 3:0 220 1:9 333 2:9 350 12:0 66 2:0 559 4:5 682 5:6 621 1:5 1:5 1:5 1:5 1:5 1:5 1:5 1:5	11.0 19.5 9.7 4.6 5.3 5.1 1.8 1.2 2.1 2.1	1.0 2.6 10.8 2.7 11.7 2.7 11.0 5 16.2 7.8 4.1 4.4 5.0 1.6 1.19 12.9*	8 2 0 8 0 2 0 1 2 3 8 8 4 15 2 4 3 5 5 8 3 1 4 8 8 8 8 8 5 †	2.2 7.8 1.6 1.9 8.2 .4 13.4 5.0 3.1 3.0 4.6 1.3 8.2 6.0 6.0 6.0
Total, including Miscel- laneous	154.7	144.6 147.5	145:1 138:9	146.2 143.	3 1	28.4 110	3 104.8	96.3	78·4	72.0

. Including rubber tyres.

† Excluding rubber tyres.

STOCKS OF STAPLE COMMODITIES

The following table is supplementary to the summary table, p. 2, Mem. 32; but the basis has been changed, slightly in certain cases. It should be remembered that statistics of stocks are in most cases incomplete, but a certain degree of comparability should obtain in the figures which do exist. Breaks in comparability occur in the Lead figures, since Mexican stocks are unobtainable since April, 1930, and in Rubber, after Oct., 1930, when an estimate replaced the official U.S.A. afloat figure. The Sugar figures have been revised to include Poland and Hungary.

STOCKS OF STAPLE COMMODITIES.

	inning of Month.	(1) American Cotton.	(2) Copper.	(3) Tin. 1,000	(4 Les 1,000	ad. tons.	(5) Spelter 1,000	(6). Rubber.	(7) Sugar. 1,000	(8) Tea.	(9) Coffee 1,000	(10) Wheat.	Petrol eum. Mn.
		1,000 bales	tons.	tons.	U.S.	U.K.	tons.	tons.	tons.	Mn. lbs.	bags.	Mn. bush.	barrels
1929	Jan	3,494	292		32.8	0.9	42	266	4,422	220	15,703	565	624
1930	Jan	3,662	401	35.9	50.8	2.0	73	3 83	5,614	260	25,063	584	630
	April	3,870	479	41.1	41.1	6.8	90	426	6,125	210	27,470	518	639
	May		525	43.5	37.5	7.6	92	431	7,452	235	29,310	471	636
	June		528	45.9	44.3	7.4	100	418	7,002	215	29,814	412	637
	July		522	49.1	49.6	7.4	109	430	6,196	209	28,424	379	632
	Aug		517	49.0	56.1	7.0	117	448	5,046	201	27,529	412	628
	Sept Oct	5,753 5,967	532 545	49·2 47·5	65·8	5·7 6·2	123 131	464 1483	4,275 3,629	214 222	29,203	469 544	626
	Nov.		554	47.5	75.3	6.2	139	492	4,488	235	29,366	528	611
	Dec		543	47.5	80.7	7.2	142	491	6,175	243	30,447	541	609
1931	Jan		535	51.0	92.2	8.3	140	506	7,018	262	29,309	583	603
	Feb	6,578	525	53.1	101.0	10.5	142	526	7,218	274	28,829	602	59
	Mar April	6,888 7,000	519 510	57·7 58·4	110·0 116·5	13·2 13·5	142 140	533 547	7,573	270 242	28,457 28,292	630 600	593 593
	May	7,051	523	57.9	119.2	14.0	143	552	8,270	212	27,504	000	59
	June		551	60.0	127:1	13.6	146	543	,,,,,,	205	26,351		59
	July	7,625+	563	60.4		13.5	144			203			

† Provisional.

1 "U.S.A, Afloat" no longer available.

* Not available.

- (1) Total supply seasonally corrected, exclusive of European and Asiatic mill stocks.
- (2) Total supply outside hands of consumers less Japan Stocks.
 (3) London Metal Excharge Visible Supply plus "Tin" estimate of Straits Stocks.
- 4) U.S. and Mexico refined stocks to April, 1930. U.S. only since: U.K. stocks in official warehouses.
- (5 Visible supply in U.K. and U.S.

- (6) An estimate of World's stocks supplied by Rubber Growers'
- Association.
 (7) Total visible supply, exclusive of Interior Stocks in Cuba prior to Oct., 1926.
 (8) Bonded Warehouse Stocks to Jan., 1929. Tea Brokers' Assoc.
- since.
- (9) Visible supply in Brazil (Ports and Interior). Europe & U.S.A. (10) Stanford Wheat Studies Estimate of World's Visible Supply. (11) Stocks of Crude and Refined Oils in U.S.

Value of chief articles exported in the Second Quarters of 1930 and 1931 to the principal countries concerned.

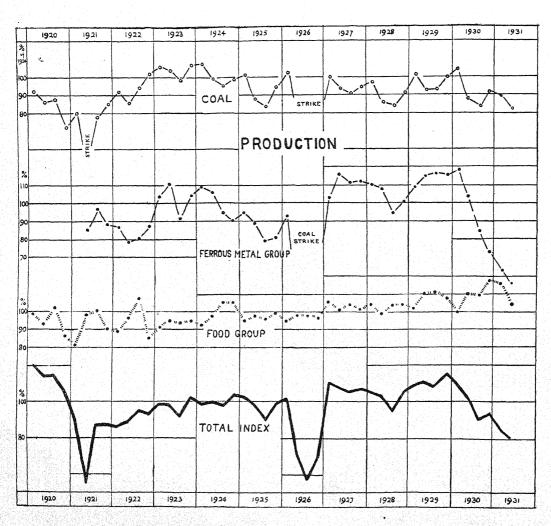
			2nd Q 1930	lr. 1931		2nd C 1930)r. 1931		2nd (19 30	
			£000			£00	00		£00	00
	FERY, Erc.	-	750		RAIL LOCOMOTIVES (Steam			COTTON PIECE GOODS—continued		
	.22.		172 37	98 15	and other) Argentine	105	80	India & Ceylon	3738	1549
Arg	entine		95	57	Rest of S. America		13	Iraq Straits Settlements & Malay	248	101
Brit	ish S. Africa		55 51	55	British S. Africa British India	87	1	States	229	112
			103	39 23	Other Countries	602	85 165	Australia	1140	657
Nev	Zealand		59	31	*			New Zealand Canada	247 225	147 191
Can	ada	•••	235	234 271		1103	344	Other Countries		1094
Uiu	or Countries						-		-	8461
	- ~ T 1		1215	823	MACHINERY (Electrical).		1 1	To S. Ireland	245	213
	To. S. Ireland		73	74	Europe S. America		252 84	WOOL TOPS & WORSTED		
				,	S. Africa	117	93	YARN.		
	IRON & FERRO ALLO	YS	65	20	Australia	267	178	Sweden Germany	136 473	129 367
Fra	nce		67	23	Other Countries		28 368	Japan	14	40
Ital	v		25	14				Uanada	256	213
U.E Oth			60 255	12 224		1534	1003	Other Countries	731	496
,	er Countries				MACHINERY (Prime Movers,			40 N Y 3-134		1245
			472	293	not electrical). Russia	70	250	To S. Ireland†	51	46
					France	1 10	256 33	WOOL&WORSTED TISSUES		
	TES & SHEETS (1	not	(. I	Spain	19	13	Germany	348	250
	oated).		99	67	Rest of Europe	000	109	Netherlands Belgium	135 106	105 107
Bri	tish India		81	50	S. America British S. Africa	75 56	21 35	France	223	182
Au	stralia & New Zealand		103	39	British India and Ceylon	223	152	Italy	78	39
Ou	ner Countries	•••	513	357	Straits Settlements	42	22 30	Other European Countries	300	235 88
			796	513	Other Countries		167	Japan	136	157
		1	$\lfloor \frac{1}{2} - \frac{1}{2} - \frac{1}{2} \rfloor$	 	La company of the second		_	U.S.A		169
GAI	VANISED SHEETS.	}	P = 1	t ·		1047	838	Brazil, Uruguay, Argentine	362	35 253
Du	tch E. Indies		69	16	TEXTILE MACHINERY.	261	49	British S Africa	164	172
Ar	gentine, Uruguay itish W. Airica		56 110	16 37	Russia	0.4	44	Australia		9 55
Br	itish S. Africa		125	111	Netherlands	92	51	Canada	526	297
Bri	itish India	• • • • •	455	143	France	. 239		i Utner Countries		454
Au Ne	stralia w Zealand			51	Rest of Europe China	236	112		3850	2607
	her Countries			450	Japan	. 99	35	To S Ireland	100	151
1	Parti Aryon	,						LINEN PIECE GOODS.		
	To S. Ireland		1706	824 39	British India	. 595	432	U.S.A		339
1				-	Australia	. 47	24	Brazil and Argentine	52	20 27
SH	EETS (Tinned, etc.)				Other Countries		_	Australia and New Zealand	100	27 59
No	rwav					2280	1320	Canada	50	50 266
Ge	rmany		105	38		1	1	Other Countries		ļ
Fr	therlands	•••			COTTON YARN. Norway, Sweden, Denmark	164			1007	761
Sp	ain		164	96	Germany and Poland	. 1244	913	APPAREL.	334	264
Di Tre	ily itch E. Indies		97	16 38	Netherlands Belgium		89	Australia	21	3
Cb	ina (with Hong Kong)	•	195 109		France	148	95	New Zealand	111	55 33
Ja	pan	•••	94	81	Switzerland	215	202		64 717	524
	azil gentine	•••	1	58 56	Bulgaria	82	75	H. 호텔 11일 : 이 이 시민 사고를 내내는데		
Br	itish India		56	30	U.S.A	130	51		1247 354	
	raits Setts. and Malay	•••	191	87		73 27		2000년 12일 : 12	- 00.	070
Ca	nada	•••			British India	301	216	BOOTS AND SHOES.	127	01
	her Countries		2.00		Australia	97				
1				-		61 501		' 1		
He			2691	1020	Office Countries		_	유럽하다 민준이는 사람들은 사람들이 하시다.	640	350
100		~ va Q	1			3738	2679	1 m c 7-13	700	
R	PPER MANUFACTUI	CHY.	18	14	COTTON PIECE GOODS.			대 2012년 1일	-	-
B	itish India	:::	67	40	Norway, Sweden, Denmark.			LEATHER.	. 93	54
I A	ıstralia ew Zealand	•••	28	10	Germany	305 270			84	74
lö	ther Countries	•••			Switzerland	348	275	5 U.S.A	. 487	1 118
1				-	Turkey	135	133	Other Countries	. 453	288
L			470	246		829	9 587 1 189		1117	
l m	N (Blocks, etc.)		1-2-5	1	China (with Hong Kong) .	231	1 215	To S. Ireland	1 00	
S	veden				U.S.A	364	4 147			-
	erman v	•••	25	10	Peru & Chile	281		PAPER. Countries	146	
1 (4)	ance S.A	•••			Argentine, Uruguay	1201	1 693	British India	69	9 2
1 (4)	.D.A		U			103		3 Australia and New Zealand .		
G Fi U	anada				I Octomoren	1		Dageoceione	125	·
G Fi U	anada ther Countries				Egypt Africa	552	2 280	Other British Possessions .		_
G Fi U	anada			. 126	Egypt	552 1212 301	2 280 2 745	5 1 2 3 3 3 3 3 3 3 3 3	78	

THE PHYSICAL VOLUME OF PRODUCTION.

for the second quarter of 1931 is 80.5, 20 points lower than the corresponding quarter of a year ago, and nearly 5 points lower than last quarter. A certain amount of this fall from the previous quarter is due to seasonal influences, but there has probably been some decline in the trend figure during 1931. The coal figure is lower, as would

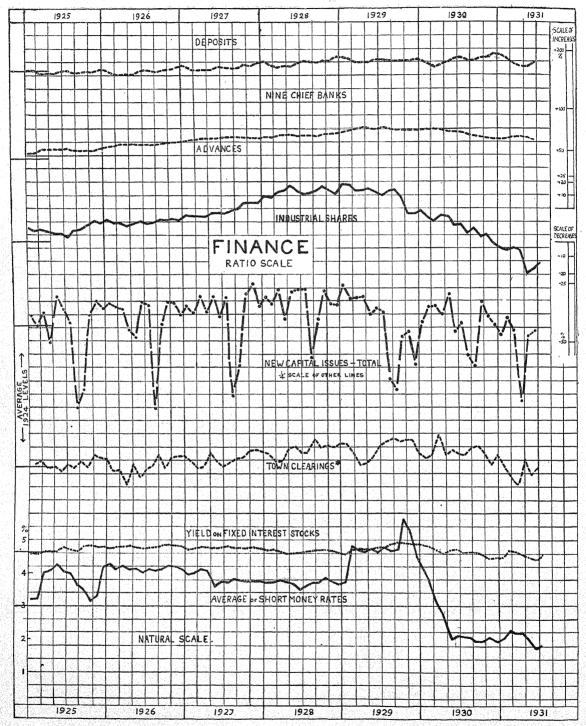
be expected, and a new low level in iron and steel production is reached; 55.8 is the combined figure, 40.9 the shipbuilding figure. The non-ferrous metal group shows a substantial rise on the first quarter, the textile figure also indicates an improvement; on the other hand the food and tobacco group shows a substantial falling off, due to large declines in cocoa and tobacco.

QUARTERLY INDEX OF PRODUCTION.



QUARTERLY INDEX NUMBERS OF PRODUCTION. AVERAGE 1824=100.

	Final Index.		1183	98.8 99.9 97.9 103.8	102.6 98.2 90.1	102.2 72.0 67.3 69.7	110'8 108'1 105'9 107'4	105.7 103.7 95.4 105.2	108'3 111'0 108'2 114'8	109.6 100.9 90.7 92.7	80.1 80.5	
VII.	Paper.	000 tons 244·3	86	53.7 104.9 127.2 114.2	77·3 99·4 108·6 111·2	91.7 114.4 114.8 103.5	109.0 112.1 126.4 124.2	82.4 118.0 99.8 122.9	111.2 136.6 139.7 147.0	116·3 127·0 125·4 122·5	101.6 94.0	
. •	Group Index (incl. heavy Chemi-		29	95.4 103.0 101.0 101.2	107-6 94-4 82-4 87-4	90.0 79.5 72.6 84.4	107·0 92·6 92·8 97·9	104·8 103·8 93·3 102·7	100.1 102.1 103.4 105.4	94·5 88·8 97·7 84·2	83.9 84.0*	
VI.	Oil Seed crush- ing.	000 tons 435·3	1	109:9 97:8 87:8 104:5	118 ² 91 ¹ 93 ⁰ 84 ⁶	92.8 84.6 80.4 59.7	82.8 77.5 66.8 70.6	98.8 99.8 79.5	109-2 86-0 69-7 87-7	79.7 69.2 59.1 75.7	82.0 86.4	
	Group Index.		500	92.5 97.8 104.9	94.8 97.8 96.0 99.4	95.3 98.6 97.8 96.8	105.7 101.4 104.2 101.6	104.4 99.3 103.5 104.2	101.9 110.6 111.3 107.9	99-8 110-3 109-3 117-1	115.3	† Under Construction.
	Tobacco	000 Ibs. 36,477	4%	95.6 99.7 101.9	96·3 105·2 110·2 108·5	102.5 112.7 104.8 112.8	107.2 110.0 118.7 121.9	116·9 124·3 127·7 133·6	123·3 139·1 141·1 142·1	138.3 136.7 138.0 145.4	142.9	ader Con
Α.	Cocoa.	cwts. 259,231	II.	109·6 89·6 88·7 112·1	109.9 113.3 99.2 112.1	119·3 114·4 87·6 113·9	144.3 82.4 102.8 101.3	121.4 103.7 102.5 101.0	115.3 116.7 103.4 108.3	99.9 121.7 96.5 121.6	151.2 95.9	101
	Wheat and Flour.	000 cwts. 31,914	09	85.4 99.6 111.6 103.3	89.2 89.3 88.4 91.1	82.2 87.0 97.9 84.0	92.4 103.6 98.0 92.3	93·2 86·4 92·7 91·8	87.0 94.9 100.1 91.4	81.3 91.8 99.8 101.9	89.9 97.5	
	Group Index.		216	101.0 90.8 83.2 125.3	134.2 124.0 99.5 129.0	130-4 102-1 82-2 107-0	139-0 118-2 108-2 113-5	118.4 112.0 98.1 119.7	120·8 114·7 94·1 124·5	112:9 90:6 68:4 87:7	79.3 83.9*	1925
IV.	Silk.†		OT	74.6 94.3 111.5 119.5	112.2 152.0 81.9 79.3	92.7 96.5 86.3 105.0	108-2 101-8 96-9 147-6	151.1 136.6 140.8 158.0	147·3 142·2 162·8 175·0	159.0 125.0 127.2 140.7	142.0 132.0*	m 3rd Or
	Cotton.	bales 689	\$ \$ 8	104·2 90·4 79·7 126·0	136.9 120.6 101.6 135.1	135.0 102.8 81.7 107.2	142.8 120.2 109.6 109.3	114·4 109·0 92·9 115·0	117.6 111.4 85.8 118.6	107.3 86.4 61.3 81.3	71.7	l cille fro
	Group Index.		25	96.6 90.4 111.6 101.2	100.0 102.6 111.2 110.3	117.6 103.8 114.4 119.2	125·9 123·5 118·7 119·8	117.5 122.9 106.9 112.1	111.5 120.5 117.7 114.7	111.8 117.2 114.3 119.4	92.4 121.9	+ Includes artificial silk from 3rd Or. 1925.
HI.	Lead, Tin and Zinc.	tons 87,967	69	96·4 87·3 118·5 97·7	102.3 108.9 117.0 124.9	123·8 111·1 110·4 121·5	131.6 115.8 124.4 114.2	109.9 120.0 94.3 106.5	106·1 120·3 120·4 109·7	119·7 113·7 100·4 123·9	96·0 138·1	+ Include
	Copper.	tons 39,626	99	96·9 93·8 104·1 105·0	97.4 95.7 104.8 94.3	110.9 95.8 118.8 116.7	119·7 132·0 112·4 125·9	125·8 126·1 120·6 118·2	117.4 120.8 114.7 120.1	103·1 121·1 129·4 114·5	88·6 104·2	
	Group Index.		341	109.0 106.2 94.6 90.6	95.1 89.2 79.4 81.1	92-8 49-4 25-1 32-7	103.4 116.0 111.3 112.0	110°1 107°7 94°9 100°8	109·1 114·8 116·4 115·9	118·1 104·1 85·2 72·9	63.2 55.8	+00
	Railway Vehicles	tons 9,929	9	142.7 112.9 78.3 66.1	167-9 150-0 111-9 98-5	188·6 149·1 94·0 82·6	67.0 155.7 196.3 244.6	199.3 265.1 154.2 126.2	139.9 131.6 152.8 149.9	149.0 180.8 151.2 189.8	104·9 75·7	x x x 11 - Watershood
11	Ship- Railway building Vehicles	000 tons 1,373	es es	100.0 106.7 103.1 90.1	79·5 74·1 67·6 57·4	55.6 55.6 48.6 48.1	87:2 100:6 111:8 114:7	104·9 87·6 79·4 90·5	98:8 105:9 105:4 113:6	117·6 101·4 81·4 66·2	50.6 40.5	7 14 %
	Steel.	000 tons 2,050	36	111.2 106.0 90.8 92.8	983.3 83.3 93.3	103.8 36.1 8.8 24.9	122:3 121:1 102:8 97:7	106.5 102.7 99.2 107.4	117.0 121.1 120.0 115.4	118.4 97.0 82.5 64.0	67.7 62.9	
	Pig Iron.	000 tons 1,827	12	105.0 102.8 97.1 95.3	94.4 90.6 75.9	87.8 36.7 2.4 6.8	91.8 112.3 100.3 94.8	93:3 94:0 85:4	91.6 105.3 110.5 107.5	105·1 98·4 72·7 62·9	55.4 •54.4	
i	Coal- mining.	000 tons 67,308	232	107·3 99·3 95·0 98·4	100.8 87.8 83.6 94.4	102:5 29:8 10:4	100.0 93.5 90.8 94.1	97-1 86-1 83-8	101-2 93-1 93-3	104·2 87·8 83·7	88:5	
Ë	1 .	age erly stion,	hts.	Qrs.	нака	- 4004		. наю а	нама	. H0W4	HQ	
Group	Industry	Average quarterly production, 1924.	Weights.	Year., 1924	1925	1926	1927	1928	1929	1930	1931	



Scale applicable to all lines.

*NORMAL SEASONAL CHANGE REMOVED.

FINANCE.

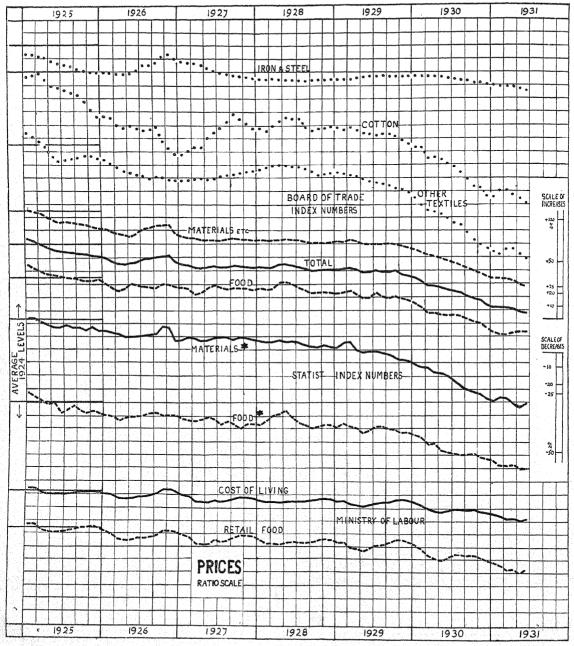
	ST	OCKS &	SHAR	ES	NE	w	BAN	K CLE	ARIN			~~~	OT	HER I	BANKI	NG.	YEMPRENE I PROPERTY	ar ar house, and the			MONE	Υ.
		strials w upp	Fix Inte		CAPI ISSU	TAL		on Ban		Pro- vincial	Ban Engl					aring uks.			BILLS	Index.	rate.	rate.
	New Index of Price	Sensitive Index Month-to-Month Variations	Index of Price	Index of Yield	for U.K.	for Abroad.	To	wı.	Country.	11 Towns.	Private Deposits.	Bank and Currency Notes. t	Deposits,	Discounts.	Advances.	Invest- ments.	Ratio of Cash to Deposits.	Ratio of Advances to Deposits.	TREASURY	Money	Day to day 1	3 monshs' r
	%	s ≥ %	%	%	£Mn.	£Mn.	£N	In.	£Mn.	£Mn.	£Mn.			£Mn,	£Mn.	£Mn.	%	¥ %	£Mn.	Short	%	%
1924 Average	100		100	100	7.4	11.2	2070	*	226	147	109	390	1632	242	791	324	11.7	48.5	601	100	2.43	3.45
1925 1st Qr. Av. 2nd ,, ,, 3rd ,, ,,	109 106 107 114		100·3 98·5 98·0 96·3	99·7 101·5 102·2 103·9	13·8 14·6 3·8 11·9	5·3 7·8 3·1 13·1	2230 2140 1950 2140	2130 2 080 21 00 223 0	235 235 221 234	150* 140* 135 146	114 107 112 110	382 386 385 379	1634 1609 1619 1631	227 199 231 237	827 849 841 841	289 273 257 261	11.8 11.9 11.9 11.8	50·6 52·7 52·0 51·5	611 573 615 641	116 138 125 119	3·10 3·96 3·41 3·42	4·03 4·46 4·08 4·01
1926 1st Qr. Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	114 113 114 116		96·8 97·0 96·2 95·5	103·3 103·1 103·9 104·7	14·7 8·1 8·5 15·7	11.3 9.8 6.2 10.2	2070 2100 1990 2150	1970 2040 2150 2250	231 219 205 226	141 123 117 128	107 103 108 104	371 381 374 371	1610 1600 1634 1662	209 195 226 225	866 875 874 887	255 244 247 251	11·7 11·9 11·8 11·8	53·8 54·6 53·5 53·4	611 578 624 667	140 137 137 140	4·15 3·92 3·95 4·02	4·56 4·3 4·40 4·6
1927 1st Qr. Av. 2nd ,, ,, 3rd ,, ,,	119 121 124 131	•••	97·0 96·6 96·6 97·3	102·9 103·5 103·5 102·8	17:8 16:5 7:2 17:2	9·8 5·8 6·8 20·4	2228 2253 2040 2240	2117 2190 2200 2340	251 238 224 238	135 131 129 140	105 98 100 101	364 377 376 376	1660 1659 1672 1711	220 200 211 233	803 913 919 916	245 237 236 236	11.6 11.7 11.5 11.5	54·5 55·1 54·9 53·5	642 576 609 651	135 127 126 125	3·91 3·68 3·66 3·59	4·2 4·0 4·3 4·3
1928 1st Qr. Av.	138	•••	98.6	101.4	18.5	16.0	2320	2210	237	138	105	369	1706	226	923	241	11.1	54.2	594	125	3.58	4.2
APR MAY JUNE	143 148 143		100·9 100·3	99·1 99·7 100·0	10·6 25·8 25·4	16.0 13.5 16.0	2440 2400 2440	2370 2410 2 3 10	252 246 229	143 134 122	102 95 103	376 372 374	1690 1688 1731	197 199 234	935 937 930	233 232 231	11·1 11·1 11·2	55·3 55·5 5 3 ·7	520 535 568	124 123 117	3·75 3·63 3·17	4·0 3·9 3·7
JULY AUG SEPT OCT NOV DEC	139 140 143 146 143 139	•••	99·4 98·7 98·5 98·2 98·7 100·1	100·7 101·4 101·5 101·8 101·4 99·9	24·1 5·5 7·6 29·7 17·0 18·0	17·7 1·0 10·7 10·9 11·0 6·7	2190 2230 2300 2350 2350 2320	2320 2540 2390 2430 2410 2470	246 223 211 244 236 245	132 116 117 130 125 140	105 103 99 100 99 67+37	376 374 374 369 367 375	1749 1732 1732 1753 1752 1806	256 254 244 248 248 259	933 932 930 939 942 946	236 237 244 243 241 244	11.0 11.1 11.2 11.0 11.0	53·3 53·8 52·7 53·6 53·8 52·4	585 609 622 654 703 779	120 124 126 130 125 123	3·38 3·48 3·69 4·06 3·52 3·25	3·9 4·2 4·3 4·3 4·3
1929 JAN FEB MAR APR JUNE	149 148 143 143 144 141	- 1.0 - 3.4 0 + 0.3 - 2.7	101·1 98·2 97·1 97·9 97·2 97·3	98·9 101·9 102·9 102·3 102·9 103·5	18:0 26:2 24:8 28:8 12:3 14:0	29·4 6·8 9·0 6·0 8·8 11·4	2570 2440 2230 2210 2250 2560	2 460 2310 2120 2150 2250 2430	250 236 237 253 241 235	136 127 118	** 58+36 63+38 61+36 61+36 61+36	353 355 359 363	1809 1777 1739 1743 1732 1770	274 260 214 191 195 216	956 968 980 987 977 978	250 246 244 244 244 244	10.9 10.5 10.8 10.9 10.9	52·9 54·5 56·4 56·6 56·4 55·3	780 774 712 707 702 756	125 162 160 158 159 156	3·54 5·06 4·58 4·44 4·69 4·23	4.2 5.2 5.2 5.2 5.2 5.2
JULY AUG SEPT OCT NOV DEC	142 144	- 4·2 + 2·5 + 1·1 - 5·2 -11·3 + 0·5	96·0 94·2 93·5 93·9 94·1 94·5	104.0 106.2 107.0 106.5 106.3 105.8	13·9 2·2 1·5 7·5 6·3 4·0	8·3 1·4 1·2 4·0 6·6 1·2	2370 2250 2410 2440 2450 2170	2510 2560 2510 2530 2530 2530 2320	248 226 224 248 242 248	112 114 123 123	63+36 65+36 63+36 70+37 55+42 58+36	371 362 360 358	1778 1759 1754 1765 1761 1773	234 225 222 227 231 227	985 980 971 971 970 971	242 242 242 241 235 236	10.7 10.9 10.7 10.6 11.3	55·4 55·7 55·4 55·0 55·4 54·8	757 776 772 787 792 805	160 156 157 189 177 151	4·73 4·13 4·21 5·27 5·38 4·64	5.3 5.4 5.4 6.2 5.6
1980 JAN FEB MAR MAY JUNE	120	+ 0.3 - 4.6 - 2.6 + 6.5 - 3.4 - 7.0	95·5 96·1 98·1 100·3 98·4 97·7	104·7 104·2 102·0 99·7 101·7 102·4	11.3 8.0 16.9 11.9 17.8 7.7	5.6 18.2 9.4 9.4 20.1 5.5	2340 2400 2770 2340 2360 2430	2240 2280 2630 2280 2360 2300	250 236 234 249 235 228	121 120 114 104	64+36 59+35 59+36 66+36 58+36 59+35	348 350 361 356	1767 1714 1682 1712 1742 1788	243 218 181 207 246 273	970 973 976 970 957 958	233 229 225 225 231 233	10.9 10.6 10.8 10.9 10.7 10.6	54·9 56·8 58·0 56·7 54·9 53·6	758 678 615 571 585 618	136 125 104 82 68 71	4·04 3·85 3·35 2·23 1·94 2·13	4·1 3·9 3·0 2·4 2·1 2·3
JULY AUG SEPT OCT NOV	110 103	+ 0.6 - 7.2 + 6.0 - 9.9 + 2.8 - 5.8	99·7 99·2 99·7 101·3 103·9 103·3	100·4 100·9 100·4 98·7 96·3 96·9	13·1 3·5 2·4 12·8 11·5 10·4	3·3 3·1 2·6 17·7 8·4 5·4	2150 2100 2340 2220 2070 2150	2280 2400 2430 2300 2140 2290	233 224 207 230 226 226	95 89 95 100	70+36 66+34 65+34 66+36 60+33 64+33	367 358 357 355	1794 1767 1764 1791 1801 1839	284 279 284 296 310 320	952 936 927 924 920 915	241 250 255 257 265 269	10.7 10.6 10.5 10.5 11.1	53·1 53·0 52·6 51·6 51·1 49·7	633 648 649 656 672 706	69 69 65 65 70 66	1.88 1.96 1.69 1.65 2.04 1.52	2:22
1931 JAN FEB MAR MAY JUNE	94	- 4.0 - 3.5 + 2.7 - 3.0 -17.0 - 1.1	103.0	96·8 101·8 100·6 99·9 97·6 96·0		4.5 13.6 6.0 .3 10.1 8.4	2210 2060 1960 12270 1980 2196	2110 1950 1860 2210 1980 2080	238 218 213 228 218 205	98 94 93	65+33 58+34 59+33 61+35 62+34 71+34	350 354 353	1836 1782 1726 1698 1700 1744	328 299 238 209 222 264	909 909 921 925 919 908	281 293 295 292 274 272	10.6 10.5 10.5 10.3 10.4 10.5	49.5 51.0 53.3 54.5 54.1 52.1	784 646 587 559 571 623	68 76 75 75 68 60	1.87 2.50 2.23 2.31 1.98 1.56	22222
JULY	86		101.5	98.7	1					1000	66+34								633	62	1.75	2
*Excluding	* NO	DRMAL	SEA	SONA	L CH	ANG	E RE	MOVE	ED.	•	Hor m		m Dec						figure O		, 22 19	28.

STOCKS & SHARES-NEW CAPITAL ISSUES-BANK CLEARINGS-

BANK OF ENGLAND-PRINCIPAL BANKS-

New Index Nos. of Prices and Yield as percentage of 1924 level; on 15th of month. See Spec. Mem. No. 33. Sensitive Index.—Geometric Mean of monthly percentage changes. Issues during month in Gt. Britain (a), for U. K. (b), for Abroad, excluding Government loans, etc.—See MONTHLY REVIEW OF THE MIDLAND BANK, LITD. Total of Town Clearings (i.e., excluding Motropolitan) of London Bankers' Clearing House for 3 weeks covering 2. Stock Exchange settlement days, Consols settlement day, and 4th of following month, Country Clearings 10 London Bankers' Clearing House for 10 London Bankers' Clearing House for 24 working days. Deposits, other than public, 11th-17th of month. Bank Notes and Currency Notes in directional Clearings for 11 towns—proportionate totals for 24 working days. Deposits, other than public, 11th-17th of month. Bank Notes and Currency Notes in directional time 11th-17th of month. Issues amalgamated, November 22nd, 1928. "Current, Deposit and other accounts," etc. Averages for the month of 9 clearing banks (i.e.—excluding the National Bank, Lid.).—MONTHLY REVIEW OF THE MIDLAND BANK, LITD.
Total outstanding in middle of month (11th-17th).
Average of Bank Rate, Bankers' Deposit Rate, 3 Months' Bill Rate and day-to-day rate for week ending 15th of month, expressed as percentage of 1924 average.

Day-to-Day Rate and 3 Months' Rate. Averages for week ending 15th of month.



Scale applicable to all lines.

¥ NORMAL SEASONAL CHANGE REMOVED.

PRICES AND WAGES.

U.S.A. PRICES.

				WHOLES.	ALE.				RETA	AIL.	WAGES.	Toppegaza	BUREAU	J OF L	ABOR
	Bar Silver	Board o	of Trade Ind	lex Nos. Materials.	Statia	t (Sauerb	eck) Index 1	Мов.	M. of L	abour.	New Index	Kelecology	Wholesale Index General	ex (p)	Cost off Living All items
	(Cash).	General.	Food.	etc.	Foo		Raw Materials	Total.	Cost of Living.	Food.	of Average Weekly		7hol Ind 3ene	Retail Index (Food)	Cost
	d. per oz.	%	%	%	%	%	Materials. %	%	%	%	Wages		* %	%	%
1924 Average.	34.0	100	100	100	100	*	100	100	100	100	100*		100	100	100
1925 st Qr. Av nd ,, ,, rd ,, ,, th ,, ,,	32·2 31·4 32·4 32·3	101.6 96.0 93.9 92.0	105.6 100.6 98.3 97.2	99·4 93·6 91·6 89·2	105 97 96 93	104 97 96 94	101 96 96 95	103 97 97 95	101 99 100 101	102 98 100 101	100·5 101 100·5 100·5		106.5 104 106 106	104·5 104 110 113	102* 104‡
1926 st Qr. Av nd ,, ,, nd ,, ,,	31·0 30·2 29·1 25·2	88.6 87.2 90.2 90.4	92·8 93·1 92·5 93·9	86·3 84·1 89·0 88·5	91 92 93 90	90 91 9 3 92	92 89 90 94	92 90 91 92	98 96 98 101	96 94 95 99	100·5 100·5 100 100·5		104 102 101 100	111 110 107 111	102* 103‡
1927 at Qr. Av ad ,, ,, ah ,, ,,	25·3 26·1 25·5 26·4	85·6 84·8 85·1 84·8	90·8 91·6 91·8 91·3	82·9 81·2 81·6 81·5	89 91 87 85	89 90 87 86	88 87 88 89	89 89 88 87	97 94 94 97	94 91 93 96	101 101 101 100·5		97.5 95.5 97 99	108 107 105 107	101*
1928 st Qr. Av	26.3	84.6	91.5	81.1	89	89	86	88	94	92	100		98	104 5	
PR IAY UNE	26·2 27·4 27·5	86·1 86·4 85·8	95·4 95·8 94·7	81·3 81·6 81·3	94 97 92	93 96 91	88 86 86	90 91 88	94 94 94	90 92 92	100 100 100		99 100·5 99·5	104 105 5 105	99.1
ULY LUG EPT OCT VOV, DEC	26·5 26·8	84·9 83·8 82·8 83·1 83·0 83·1	91·9 90·7 88·7 89·2 89·3 89·1	81·3 80·3 79·8 79·9 79·7 80·0	88 85 84 84 85 85	87 86 84 85 86 86	85 84 84 84 85 84	87 85 84 84 85 85	94 94 95 95 96 95	92 92 92 93 94 93	100 99.5 99.5 99.5 99.5 99.5		100 101 102 100 99 99	105 106 108 107 108 107	100
1929 AN EB IAR PR IAY UNE		83·2 83·3 84·4 83·4 81·7 81·6	88·7 89·4 90·3 88·5 86·3 86·2	80·3 80·0 81·2 80·7 79·3 79·1	85 87 86 86 82.5 83.5	85 87 85 85 81.5 82.5	84 86 87 82 80 5 79 5	84 86 87 84 81	94 95 92·5 92 91·5 92	91·5 92 88 87·5 86 87·5	99·5 99·5 99·5 99·5 99·5 99·5		99 98.5 99.5 98.5 97.5 98.5	106 106 105 104 105 106	99'
ULY UG EPT OCT OC	24·2 23·8 23·0	82·7 81·8 81·7 81·9 80·6 79·7	89·4 86·8 85·8 87·2 85·6 84·6	79·2 79·1 79·5 79·1 78·0 77·1	86 84·5 83 82·5 80 81	85 85 84 8 3 ·5 8 1·5 82	80·5 80 79·5 78 76 76	83 82 81 80 78 78 5	93 93·5 94·5 95·5 95·5 95	90 90.5 91.5 93.5 93.5 93.5	99·5 99·5 99 99 99	TEMPORE THE SAC EXPERIENCE TO SHARE	100 99.5 99.5 98 96 96	109 110 110 110 109.5 108	100
1930 IAN PEB IAR IAPR IUNE	20·2 19·2 19·5 19·2	78·8 76·9 74·9 74·4 73·3 72·6	83·4 81·0 77·7 77·6 76·5 76·6	76·3 74·7 73·4 72·6 71·5 70·4	80.5 79 76 77 73 72.5	80·5 79 75·5 76 72 71·5	74 73 72 70 69 66·5	77 75 74 73 71 69	94 92 90 89 88 88 5	90.5 88 84 82 81 83	99 98·5 98·5 98·5 98·25 98·25		95.2 93.9 92.6 92.5 90.8 88.5	106.5 105 103 104 103 101	97
JULY AUG SEPT OCT NOV DEC	16·0 16·3 16·8 16·7 16·7	71.7 70.9 69.5 68.0 67.4 65.5	76·4 75·9 74·4 72·9 72·5 69·8	69·2 68·2 67·0 65·4 64·7 63·3	72 69·5 70 70 68 67·5	71 70 70·5 71 69 68	65 64 62:5 61:5 61	68 66 65 65 64 62·5	89·5 89·5 89·89·5 88·5 87·5	84·5 84·5 84 84·5 83 81	98·25 98·25 98·25 98·25 98·25 98·25		85 6 85 6 85 8 84 2 82 0 79 9	99 99 100 99 97 94	94
1931 JAN FEB MAR APR. MAY JUNE	. 12·3 . 13·8 . 13·0 . 13·1 . 12·3	64·3 63·9 63·7 63·6 62·8 62·1	68·1 67·2 66·8 67·7 68·1 68·1	62:4 62:1 62:1 61:5 60:1 59:1	67·5 65·5 66 66·5 65	67·5 65 65 65·5 64 64	58 59 58*5 57 55 56	61.5 61.5 61.5 61 59 59	87 86 84 84 83 84	80 79 76 76 75 76	98·25 97·75 97·75 97 97 97		78.5 77.0 75.9 74.7	91 87 86 5 85	
JULY	.\ 13.2	* NOR!	VAL SE	SONAL 1	ARIATIO	ON REM	IOVED.	<u> </u>	• Dec	ember, 19	924.			rent resti June T	

% 1	%	%
100	100	100
106·5 104 106	104 [.] 5 104 110	102*
106	113	104‡
104 102 101	111 110 107	102*
100	111	103‡
97.5 95.5 97	108 107 105	101*
99	107	100.2
98	104.5	
99 100·5 99·5	104 105 5 105	99.5
100 101 102 100	105 106 108 107	
99	108 107	100
99 98:5 99:5 98:5 97:5 98:5	106 106 105 104 105 106	99'5
100 99.5 99.5 98 96 96	109 110 110 110 109.5 108	100
95 2 93 9 92 6 92 5 90 8 88 5	106.5 105 103 104 103 101	97
85 6 85 8 84 2 82 0 79 9	99 99 100 99 97 94	94
78.5 77.0 75.9 74.7	91 87 86 5 85	

PRICE OF SILVER-

Average (cash) price of bar silver for week ending 15th of month.—ECONOMIST.

BOARD OF TRADE INDEX—Geometric Mean of Wholesale Prices (averages for month) of 150 commodities as percentage of 1924 average.

—BOARD OF TRADE JOURNAL. STATIST (SAUERBECK) INDICES—

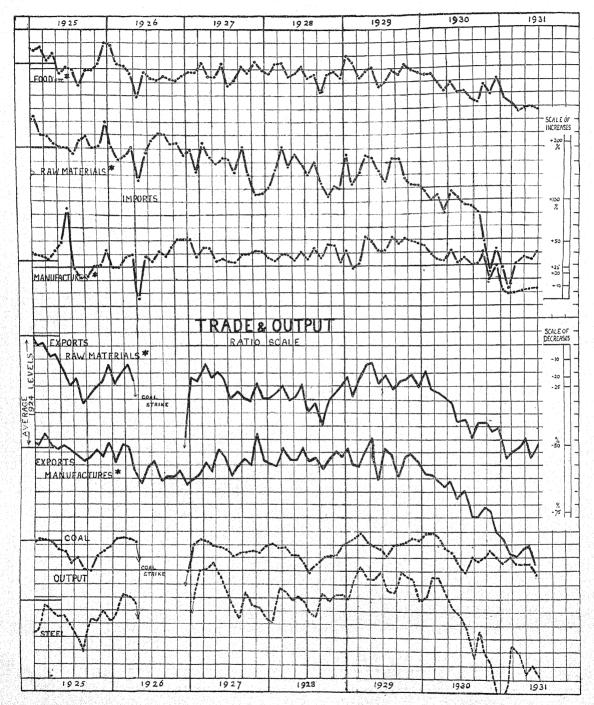
Average wholesale prices of 19 foodstuffs and 26 raw materials on last day of month, as percentage of average for 1924.—STATIST.

Ministry of Labour's index showing movement since 1924 in cost of maintaining unchanged the standard of living prevalent in working-class households before the war. For 1st of month, but placed against previous month—e.g., reading for March 1st is shown against February—to facilitate comparison with "Statist" index. As above, for food only.

RETAIL FOOD PRICES-WAGES INDEX-

COST-OF-LIVING INDEX-

For description see Special Mem. No. 28.



Scale applicable to all lines.

* NORMAL SEASONAL CHANGE REMOVED.

TRADE AND OUTPUT.

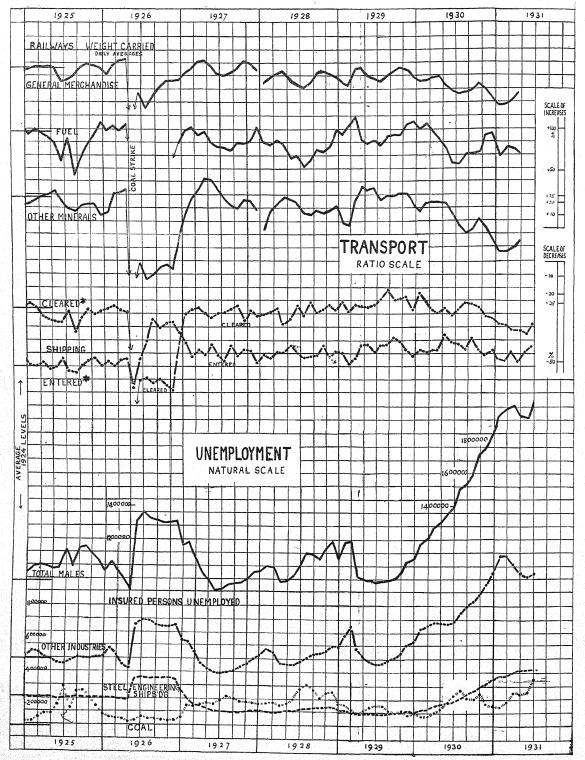
		at telegraphic	TOT	AL IM	PORT	S (Val	nes).				EXPO	ORTS (F U.	K GO	ODS	Values).	a di	01	UTPUI	1	SHIP.
	Fo Drink Tobs	c and	R Mate	aw erials.	Ma facti		(inclu	tal ding aneous)	TOTAL. NET IMPORTS.	For Drink Tobs	and	Ra Mater	w ials.	Ma facti	nu-	Tota (includ Miscella:	ling	Coal.	Pig Iron.	Steel.	Tonnage Com- menced
	£Mn.		£Mn		£Mn.		£Mn.		£Mn.	£Mn		£Mn.		£Mn.		£Mn.	NAME OF TAXABLE PARTY.	Tons Mn.	Tons 000	Tons 000	Tons 000
1924 Average.	47.6	*	33.3	*	25.0	¥	106.4	¥	94.8	4.7	¥	8.9	*	51.6	¥	66.8	¥	21.2	520	641	263
1925 1stQr.Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	47:9 45.4 44:7 52:8	51:2 47:0 43:8 49:2	42·0 31·3 27·9 40·6	34.3	26·8 31·3 23·1 25·4	26·4 31·4 23·3 25·7	117·3 108·6 96·1 119·2	116·2 112·6 101·9 110·8	104·0 95·4 84·3 105·4	4·7 4·1 4·5 5·0	5·7 4·7 4·1 4·2	8·1 6·9 6·1 7·0	8·2 7·1 6·1 6·7		54·4 51·6 48·4 51·0	69·6 61·3 62·2 64·6	69·9 64·7 60·1 63·4	21·3 19·2 17·8 19·7	537 509 422 448	608 589 524 597	202 190 261 161
1926 1stQr.Av 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	46·1 40·8 43·8 46·2	49·1 42·3 43·0 42·9	35·0 28·4 30·5 37·0	30·6 36·1	25·6 24·2 26·3 28·9		107·1 93·7 101·0 112·5	106·4 97·4 106·0 106·1	94·8 83·9 92·4 101·6	4·2 3·6 4·3 4·6	5·1 4·2 3·9 4·0	6·7 3·8 2·0 3·2	6·9 4·0 2·0 3·2	50·9 40·9 45·0 42·5	43·1 43·7	63·2 49·5 52·6 52·0	63.5 52.5 50.8 51.1	21·5 —† — —	499 207 13 38	665 245 56 161	193 168 68 152
1927 1stQr.Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	43·1 43·4 43·9 49·6	46·0 44·9 43·1 46·1	34·7 28·6 25·1 28·9	30.8	28·7 26·5 25·5 26·9	26·4 25·7	-107·0 98·8 95·0 105·9	106:5 102:5 100:1 99:3	96·5 87·2 86·1 95·8	4·1 3·8 4·5 5·0	4·9 4·5 4·0 4·3	6·7 6·7 5·9 6·2	6·8 6·8 5·9 6·0	44·8 45·6 47·1 50·6	48 0 45 7	56.8 57.3 58.7 63.5	57·1 60·4 56·8 62·4	21·1 20·3 19·3 20·0	524 631 558 527	782 799 648 629	580 437 370 377
1928 1stQr.Av.	44.0	46.5	32.1	29.1	26.7	2 5·9	103.2	102.0	92.2	4.3	5.2	6.0	6.0	49.1	47.7	60.6	60.2	20.3	524	672	342
APR MAY JUNE	41·0 42·7 45·8	43·1 44·3 46·6	29.9	31.8	25.7	26·4 25·4 26·9	96·8 99·4 99·4	99·1 102·6 105·0	85·8 87·6 87·9	3·8 4·0 3·8	4·7 4·6 4·2	5·3 6·2 6·1	5·7 5·9 6:4	45·0 46·4 48·0	47.6	55·3 58·6 59·5	59·5 60·1 63·7	19·3° 19·2° 18·2	526 534 526	675 690 664	} 279
JULY AUG SEPT OCT NOV DEC	43·8 44·6 40·3 48·2 48·3 45·3	44·1 39·2 44·0 44·9	24 · 3 20 · 6 24 · 2 29 · 9	30·5 26·2 23·8 25·6	25·5 27·4 25·6 29·1 27·3 24·4	27·8 25·8 28·4 28·2	95:5 97:7 87:7 102:7 106:8 101:5	98·5 103·8 92·4 97·4 99·9 94·0	87·0 88·9 80·8 93·8 96·0 92·4	4·4 4·8 4·8 5·3 5·6 4·6	4·1 4·4 4·1 4·2 4·3 4·6	5·4 5·6 4·9 6·2 6·1 6·3	5.3 5.6 4.8 5.7 6.0 6.3	49·2 50·1 45·2 50·8 49·9 46.8	48·2 44·7 48·1 50·3	60·9 62·2 56·6 64·3 63·8 60·4	58.6 59.9 55.3 60.0 62.8 62.1	16:9 17:8° 18:8 19:0 19:2 20:5°	486 469 470 491 508 492	611 594 702 665 699 699	}. 245 } 432
1929 JAN FEB MAR APR MAY JUNE	49·6 40·0 42·1 42·6 44·2 39·6	42·9 44·9 45·9	27:0 28:8 30:9 29:2	31·5 31·1	23·1 27·2 30·2 29·2	23·9 24·7 29·7 28·9	116.5 90.9 98.6 104.1 103.4 91.5	110·5 97·3 96·5 106·5 106·8 96·7	106·7 80·5 88·6 93·8 93·0 81·9	4·2 4·0 3·8 5·0 4·6 3·9	5.0 5.1 4.4 6.0 5.2 4.4	6·6 5·6 6·6 6·8 7·8 6·1	6.7 5.8 6.6 7.3 7.4 6.4	53:8 44:3 47:0 47:1 53:4 38:4	45.2 50.2 54.7	66 9 55.7 58.6 60.2 67.4 49.9	65.7 58·6 57·4 64·8 68·9 53·5	21·0 21·5 22·2° 20·8 20·3° 19·9	509 520 533 571 591 614	673 775 841 773 773 812	362 428
JULY AUG SEPT OCT NOV DEC	42·2 45·7 45·1 51·2 48·5 46·6	45·1 43·9 46·8 45·0	24·2 24·2 27·3	7 <i>31·1</i> 2 <i>30·9</i>	29·5 28·4 30·2 28·2	28.6	93.6 101.0 98.4 110.3 108.2 106.4	96.6 107.3 104.1 104.7 101.2 98.9	85.6 92.0 91.6 101.1 100.0 98.6	4·7 4·5 4·8 5·4 5·7 4·9	4.4 4.1 4.3 4.4 4.9	6·9 6·0 6·5 7·1 6·9 6·2	6.7 6.4 6.5 6.8 6.2	50.8 42.2 50.3 48.6	2 41.7 47.7 49.0	66:5 63:0 55:1 64:6 63:1 58:4	63:9 60:7 53:9 60:3 62:1 60:0	18·9 20·3° 20·4 20·6 21·3 20·9*	607 616 620 622 589 581	708 705 811 783 763 661	} 499
1930 JAN FEB MAR APR MAY JUNE	42:9 37:3 40:0 36:7 39:6 37:6	43·8 40·8	24·0 24·1 20·1 23·1	1 23.8	25·8 28·1 25·6 27·7	26.6 25.6	101·8 88·2 93·4 83·9 91·0 83·4	97·3 94·4 91·4 85·9 9 3 ·7 87·8	85·8 76·1 82·0	4·6 3·7 4·0 3·6 3·8 3·2	5.5 4.7 4.7 4.4 4.3 3.6	6·9 5·8 6·0 5·4 5·8 4·7	7·0 6·1 6·0 5·8 5·6 4·9	36·7	2 42·6 5 40·9 1 39·1	58:3 51:9 53:9 46:9 51:0 42:8	57.5 54.6 53.0 50.5 52.3 45.8	22:1 22:1 21:5 19:9° 19:3 18:0°	555	621	427 230
JULY AUG SEPT OCT NOV DEC	37·2 36·7 44·1 40·6	35.7 40.8 37.7	17:1 16:1 18:1 16:1		24·2 24·6 27·7 21·6	24.8 27.1 22.3	85·2 79·9 78·7 90·9	87·6 84·3 82·5 86·2 74·9 8 3 ·9	78·6 73·6 73·3 83·7 72·6	4·4 4·0 4·2 4·4 4·8 3·5	4:1 3:6 3:5 3:7 3:5	5·2 4·4 5·0 5·3 4·7 4·7	5·0 4·4 4·9 4·9 4·6 4·7	33·1 32·0 35·9		50.7 42.8 42.7 46.9 44.1 38.5	48.6 41.1 41.7 43.7 43.2 39.5	16·9 18·6° 18·2 18·7 19·8 18·7	439 376 397 375 358	441 532 451 424	161
1931 JAN FEB MAR APR MAY JUNE	30·0 32·6 32·5 33·3	33.2 34.2 34.5 33.9	13: 15: 15: 14:6	3 12.6 1 14.9 5 15.8 6 15.8 1 16.3	19·5 22·3 20·9 21·0 20·2	20.7	75·6 63·6 70·7 70·0 69·6	73·3 68·9 69·0 71·7 71·4 72·2	57.8 65.2 63.4 63.9	3·7 2·8 3·0 2·9 2·8 2·6	4.4 3.5 3.5 3.2 2.9	3·7 3·8 4·1 4·1 4·0 4·0		24.0 25.6 24.3 26.0		37.6 31.8 34.0 32.5 33.9 29.4	35.0 34.7	19·2 18·2 18·2 18·2	307 31 30	0 48 3 45 2 39 3 42 2 39	$\left\{\begin{array}{c} 5\\8\\7\\5\end{array}\right\}$

[†] Trade Dispute.

* NORMAL SEASONAL CHANGE REMOVED.

^{° 4} Weeks, excluding holiday week.

^{*} Excludes Christmas week, but includes New Year.



* NORMAL SEASONAL CHANGE REMOVED.

TRANSPORT.

UNEMPLOYMENT.

		SHIPPING			-	RAIL	WAYS				INSUR (Gr	ED Pi eat Bri	ERSO1	NS UN	EMPLO	OYED.‡	of named a day	
	Tonnage	of Ships	Inde	x of	Stand	Freight ard Ga	uge Ra	ilways.				Mal					Fem	
	(with C Entered British	Cleared	Time % Charter Rates.	e Freight Rates.	General.	Weight In Ed 000 ton	Other Minerals	Re- ceipts. All Goods.	Total.	Coal.	Iron & Steel.	Engineering	Shipbuilding	Building and Construction.	Cotton and Wool.	§ Other Industries.	Total.	Cotton and Wool.
			/0 1			000 001	3.	£Mn	000	000	000	000	000	000	000	000	000	000
1924 Average 1925	461 💥	544 🖈	100	100	544	1743	551	8.89	941	72	52	116	78	99	35	344	263	62
1st Qr. Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	417 464 465 463 489 450 479 472	507 545 516 500 523 502 531 532	105 92 89 94	95 82 78 87	544 514 528 551	1733 1517 1491 1713	539 538 517 512	8·88 8·31 8·53 8·89	1034 1058 1107 1063	125 219 250 191	59 62 64 58	100 95 96 95	83 81 85 90	108 77 83 110	27 31 39 26	371 351 355 345	286 273 290 241	45 60 73 42
1926 1st Qr. Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	422 <i>469</i> 453 <i>451</i> 644 <i>594</i> 618 <i>606</i>	507 545 364 363 343 330 352 354	91 103 138	79 78 98 138	546 429 445 4 96	1778 667 336 1056	544 376 331 365	9·10 5·81 5·64 7·92	1003 1186 1314 1259	119 109 108 111	50 108 132 108	97 121 135 134	88 90 96 100	117 94 109 139	31 59 69 49	348 454 511 460	243 335 376 307	49 106 130 86
1927 1st Qr. Av 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	447 <i>515</i> 511 <i>509</i> 542 5 00 503 <i>4</i> 96	498 536 536 520 566 544 517 518	112 113 102 102	104 95 87 93	543 532 536 550	1754 1605 1595 1672	542 598 534 524	9·42 9·00 9·07 9·11	1032 913 929 990	201 220 243 217	41 39 41 49	97 75 67 69	73 54 48 46	134 82 92 147	29 24 29 31	356 296 295 303	236 175 194 196	46 39 48 49
1928 1st Qr. Av	449 494	502 <i>530</i>	93	84	521	1661	506	8.95	1004	208	44	67	44	152	27	323	201	43
APRIL MAY JUNE	484 <i>504</i> 528 <i>529</i> 529 <i>502</i>	486 <i>491</i> 550 <i>507</i> 570 <i>559</i>	90 90 90	84 81 83	480 519 488	1445 1506 1483	501 564 543	8·07 8·65 8·31	945 979 1053	208 245 298	47 44 45	68 66 66	48 50 55	114 103 109	27 28 35	304 314 318	183 189 221	46 49 66
JULY AUG SEPT OCT NOV DEC	544 487 534 489 516 492 563 530 481 489 506 508	549 519 597 576 547 532 570 540 549 558 516 541	90 91 98 103 116 119	83 87 87 92 98	488 505 510 574 540 475	1412 1481 1486 1636 1629 1625	514 508 494 537 528 483	8·19 8·41 8·50 9·34 8·98 8·19	1122 1114 1089 1148 1189 1088	324 295 250 279 281 212	51 51 48 47 47 47 42	67 72 72 70 74 70	57 57 62 67 66 61	114 116 127 141 159 163	40 44 43 39 37 34	341 348 349 354 367 353	255 261 266 255 264 246	81 83 79 71 66 60
1929 JAN. FEB. MAR. APRIL MAY JUNE	467 505 391 469 457 488 516 537 538 538 536 508	541 574 462 535 552 559 551 558 601 554 575 563	113 109 108 108 108 108	96 95 89 88 86 81	522 448 515 532 525 484	1832 1711 1849 1613 1646 1566	492 424 519 584 596 562	9·13 8·26 9·27 8·95 8·94 8·39	1189 1197 980 960 956 942	212 170 147 175 198 203	43 42 36 37 37 37 39	76 72 64 64 65 61	56 52 50 46 46 46	206 252 141 116 104 100	37 38 34 39 37 38	388 393 350 332 325 315	277 257 224 222 221 221	63 60 56 63 69 72
JULY AUG SEPT OCT, NOV DEC	596 534 588 539 589 562 583 549 513 521 494 497	618 585 648 625 596 580 622 589 586 595 517 542	109 116 119 104 96 88	83 83 84 77 77 77	524 513 523 579 536 477	1682 1688 1660 1811 1845 1756	578 560 548 606 573 495	9:05 8:82 8:88 9:69 9:33 8:24	947 951 961 1005 1061 1075	202 173 162 165 153 156	41 40 39 41 47 45	61 68 68 68 70 70	47 49 51 51 49 48	103 108 121 143 172 181	40 41 36 36 40 42	314 331 335 339 356 359	231 247 243 249 265 269	78 78 69 69 69 73
1930 JAN FEB MAR APRIL MAY	480 <i>519</i> 427 <i>513</i> 484 <i>517</i> 498 <i>518</i> 579 <i>579</i>	581 616 496 574 533 542 525 532 598 551	83 84 84 86 86	66 64 61 66 58	527 468 512 484 501	1892 1743 1755 1563 1621	537 503 540 506 465	9·13 8·41 8·92 8·19 8·65	1173 1209 1267 1301 1357 1396	138 142 155 177 235 254	48 47 55 64 63 63	79 85 91 98 100 107	49 50 55 55 58 62	197 195 177 160 147 147	56 63 67 71 85 91	411 425 456 465 461 469	348 374 427 460 499 515	104 121 135 151 185 202
JUNE JULY AUG SEPT OCT NOV DEC	564 517 588 561 557 524 496 504	534 523 571 541 589 567 579 563 581 551 511 519 489 513	71 71 79 — 64	62 61 70 68 62 68 71	436 483 440 474 515 449 438	1480 1434 1529 1603 1640	485 413 456 512 439	7·27 8·20 7·54 8·17 8·76 8·18 8 11	1519 1546 1605 1735 1771 1847	301 252 246 282 225 210	71 80 83 91 98 109	114 125 137 151 158 173	65 70 76 82 86 92	160 166 178 200 232 246	102 105 103 96 96 115	499 532 552 581 610 647	551 573 584 584 598 653	213 217 207 197 192 219
JAN. FEB. MAR. APRIL MAY JUNE.	451 487 401 481 478 510 459 478 511 511	469 497 423 490 466 473 465 471 504 464 507 497	64 	70 65 66 67 70	437 395 445 427	1533 1471 1571	410 367 417	7·99 7·37 8·01 7·49	1972 2017 2028 1968 1957 2068	208 239 292 278 288 377	99 99 102 101 100 101	178 187 192 194 196 199	95 101 107 108 110 110	288 274 247 220 207 214	92	697 714 701 683 677 685	691 680 638 625 621 639	181 184 185

‡Excluding any disqualified for benefit by trade dispute.

* NORMAL SEASONAL CHANGE REMOVED. § Excludes Commerce, etc.

TRANSPORT: SHIPPING—ENTERED AND CLEARED

SHIPPING FREIGHTS— RAILWAY TRAFFIC— WEIGHT

RECEIPTS

UNEMPLOYMENT--INSURED PERSONS--

Tonnage of British and Foreign vessels entering and leaving British ports with cargoes during month.—BOARD OF TRADE MONTELLY ACCOUNTS OF TRADE & NAVIGATION.

Chamber of Shipping index numbers as published by "The Statist."—PREPARED BY DR. ISSERLIS.

Tonnage of goods carried on the Rallways of Great Britain during the month, excluding free-hauled.

Monthly Receipts for goods traffic, excluding cost of collection and delivery till January, 1928, then excluding receipts for collection and delivery.—MINISTRY OF TRANSPORT.

Number of books lodged at Labour Exchanges on or about 75th of month,

MINISTRY OF LABOUR GAZETTE.

FOREIGN EXCHANGES.

	Paris f. to £	Milan l. to £	Berlin M. to £	Amsterdam fl. to £	Prague kr. to £	Berne ! f. to £	Stock- holm kr. to £	NewYork \$ to £	Buenos Aires d. to \$	Rio de Janeiro d. per mil.	Bombay d. per rup.	Hong- kong d. per \$	Kobe d. peryen
Parity	124 21†	92·46§	20.43	12.107	24.02	25.2215	18·159	4.866	47.58	27	18		24.58
1927 JAN. FEB. MAR. APRIL MAY	123.63 124.01 123.98 123.97	111.6 112.3 107.7 97.05 89.96 86.94	20·454 20·466 20·468 20·490 20·501 20·494	For 1919 12:135 12:123 12:130 12:140 12:136 12:124	to 1926 163.8 163.7 163.9 164.0 163.9 163.9	25·176 25·220 25·235 25·251 25·253 25·244	18:171 18:174 18:144 18:135 18:157 18:128	4.853 4.850 4.854 4.857 4.857 4.857 4.856	46.40 46.93 47.51 47.55 47.56 47.69	5·80 5·87 5·87 5·83 5·80 5·84	18:03 17:97 17:96 17:88 17:93 17:91	24·17 24·79 24·01 24·50 24·32 24·21	24·15 24·20 24·31 23·90 23·26 23·09
ULY SEPT OCT NOV DEC	124.00 124.01 124.00 124.03 124.00	89·04 89·32 89·35 89·12 89·47 90·69	20·450 20·431 20·433 20·408 20·422 20·435	12:119 12:129 12:135 12:116 12:075 12:073	163·9 164·0 164·0 164·3 164·4 164·7	25·220 25·212 25·222 25·249 25·272 25·277	18·128 18·116 18·094 18·084 18·098 18·080	4·8552 4·8606 4·8634 4·8700 4·8740 4·8825	47·76 47·85 47·95 47·90 47·83 47·82	5·83 5·87 5·87 5·91 5·89 5·91	17.87 17.87 17.97 17.97 17.99 18.10	24·15 23·68 23·83 23·95 24·43 24·63	23:31 23:37 23:14 22:96 22:65 22:71
JAN. FEB MAR. APRIL MAY	124·02 124·02 124.01 124·01	92·17 92·07 92·37 92·55 92·65 92·76	20·461 20·431 20·412 20·412 20·399 20·417	12:086 12:109 12:124 12:110 12:098 12:098	164·5 164·5 164·64 164·71 164·72 164·67	25·302 25·336 25·339 25·332 25·327 25·317	18·138 18·161 18·180 18·183 18·193 18·186	4·8758 4·8750 4·8801 4·8821 4·8817 4·8805	47.83 47.88 47.86 47.81 47.80 47.66	5·92 5·93 5·92 5·92 5·89	18·10 18·00 18·00 18·00 18·01 17·95	24.69 24.44 24.40 24.42 25.05 24.66	23·09 23·08 23·20 23·47 22·94 22·95
JULY AUG SEPT OCT. NOV DEC	124·23 124·18 124·14 124·11	92·81 92·74 92·74 92·61 92·57 92·66	20·384 20·364 20·356 20·363 20·354 20·360	12:084 12:101 12:097 12:096 12:082 12:078	164·13 163·76 163·65 163·63 163·64 163·72	25·255 25·211 25·200 25·200 25·190 25·178	18·161 18·134 18·130 18·138 18·143 18·132	4·8642 4·8538 4·8508 4·8498 4·8495 4·8525	47·43 47·41 47·34 47·34 47·47 47·36	5·90 5·91 5·91 5·92 5·91 5·89	17.91 17.95 18.06 18.06 18.07 18.062	24·54 24·50 24·36 24·55 24·59 24·51	22.65 22.29 22.69 22.88 22.96 22.75
JAN. FEB MAR APRIL MAY JUNE	124·23 124·24 124·21 124·14	92-67 92-70 92-68 92-70 92-65 92-67	20·402 20·447 20·455 20·475 20·415 20·335	12.091 12.115 12.117 12.090 12.067 12.074	163.83 163.84 163.85 163.93 163.85 163.73	25·207 25·231 25·229 25·214 25·190 25·198	18:138 18:155 18:170 18:173 18:154 18:113	4.8503 4.8525 4.8529 4.8534 4.8510 4.8485	47·42 47·39 47·28 47·28 47·24 47·17	5·91 5·90 5·86 5·87 5·87 5·87	18.056 18.013 18.008 17.965 17.912 17.854	24·49 24·08 24·08 23·92 23·68 23·66	22·56 22·38 22·05 22·08 22·11 21·77
JULY SEPT OCT NOV DEC	123.87 123.89 123.89 123.85	92·74 92·74 92·69 93·00 93·16 93·24	20·359 20·360 20·361 20·397 20·389 20·386	12.086 12.103 12.093 12.098 12.087 12.096	163·90 163·83 163·76 164·41 164·57 164·47	25·221 25·203 25·164 25·176 25·151 25·109	18:100 18:101 18:101 18:141 18:149 18:102	4·8511 4·8488 4·8479 4·8695 4·8777 4·8817	47·23 47·21 47·20 46·82 46·26 45·86	5·87 5·88 5.87 5·86 5·80 5·56	17.818 17.830 17.869 17.871 17.886 17.936	23·89 23·87 23·73 21·73 21·18 20·52	22:54 23:13 23:42 23:58 24:01 24:10
1930 JAN FEB MAR APRIL MAY JUNE	124·16 124·26 124·10 123·90	93·05 92·87 92·84 92·78 92·71 92·76	20·387 20·366 20·382 20·375 20·365 20·372	12:102 12:123 12:125 12:097 12:081 12:086	164·58 164·26 164·11 164·16 163·97 163·85	25·163 25·198 25·136 25·094 25·108 25·084	18·136 18·124 18·106 18·092 18·111 18·095	4·8621 4·8632 4·8634 4·8599	45·12 42·70 42·24 43·61 43·02 41·67	5.52 5.55 5.72 5.81 5.86 5.63	17:931 17:907 17:862 17:860 17:835 17:816	19·47 18·66 18·24 18·40 17·67 15·45	24·23 24·28 24·38 24·38 24·39 24·41
JULY SEPT, OCT NOV DEC	123·82 123·77 123·85 123·65	92·88 92·98 92·83 92·80 92·78 92·72	20·383 20·387 20·404 20·412 20·379 20·369	12·092 12·039 12·067 12·058 12·068 12·061	164·05 164·17 163·82 163·79 163·79 163·70	25·047 25·049 25·020 25·049	18·096	4·8652 4·8708 4·8614 4·8589 4·8566	40.84 40.67 40.37 38.50 38.65 37.42	5·34 4·87 4·98 ‡ 4·85 4·73	17.821 17.790 17.788 17.818 17.789 17.779	15·41 15·88 15·90 15·81 15·55 13·91	24·39 24·37 24·41 24·51 24·53 24·53
1931 JAN FEB MAR APRIL MAY, Veck ending	123.94 123.13 124.28 124.34	92·74 92·81 92·74 92·82 92·91	20·418 20·438 20·406 20·408 20·434	12.066 12.103 12.119 12.106 12.103	164·08 163·95 164·06	25·246 25·235	18·147 18·142 18·148	4·8550 4·8565 4·8585 4·8600	34·48 35·63 38·60 37·77	4·45 4·24 3·87 3·62 3.33	17·782 17·781 17·849 17·845 17·856	11.26 12.08 11.99	24-41 24-4 24-4 24-4 24-4
June 6 ,, 13 ,, 20 ,27 July 4 ,, 11	124·22 124·24 124·21 124·27 124·26 124·10	92·96 92·91 92·92 92·95 92·93 92·94 92·93	20·494 20·502 20·496 20·495 20·498 20·511 22·562*	12:091 12:087 12:084 12:089 12:091 12:082 12:039	164·25 164·22 164·25	25·051 25·102 25·126 25·082	18·153 18·148 18·143 18·143 18·143	3 4.8659 3 4.8644 5 4.8660	34·42 34·46 35·52 35·90 35·53	3·56 3·79 3·71 3·76 3·80 3·67 3·55	17:797 17:779 17:765 17:768 17:786 17:825 17:827	11.44 11.50 12.42 12.79 12.53	

Malengener

ROYAL ECONOMIC SOCIETY

ISSUED BY ARRANGEMENT WITH THE LONDON AND CAMBRIDGE ECONOMIC SERVICE

MEMORANDUM No. 32

REPORT ON CURRENT ECONOMIC CONDITIONS

October, 1931

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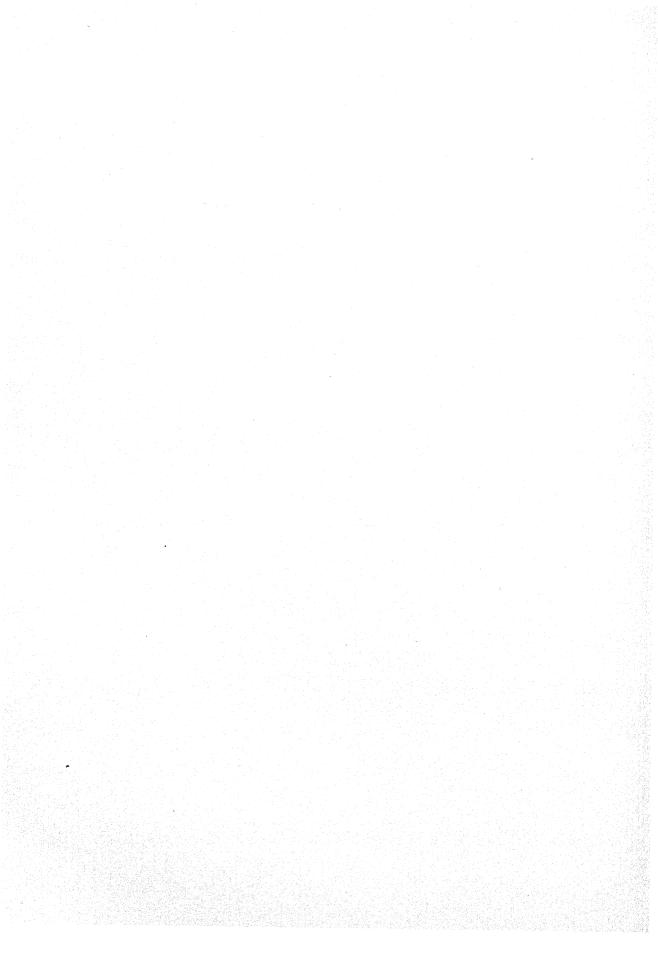
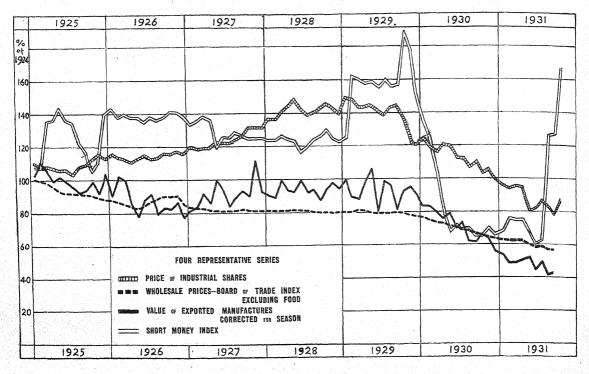


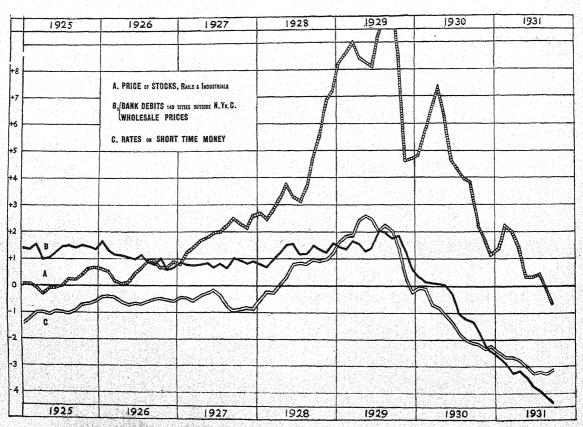
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[2018] 아마니아 아마이아 아마니아 아마니아 아마이아 아마니아 아마니아 아마니아	22-23
사람이 가루하다고 얼마를 그는 것이 나가다. 생각이 있는 생각이 아픈 아래를 가장 이 사람들이 가장 사람이 가게 하고 있었다. 그는 사람이 얼마를 가게 하는데 하다는데 아름이 없다.	24-25

INDEX CHART, U.K.



HARVARD INDEX CHART, U.S.A.



THE GENERAL BUSINESS POSITION.

UNITED KINGDOM.

October 22nd, 1931.

The evident immediate effect of the freeing of sterling exchange from gold is the reduction of gold prices of British exports and consequently a stimulus to manufacture; this is already shown by some reduction in unemployment and by reports of increased business in Lancashire and elsewhere.

This stimulus will clearly continue to be effective so long as other countries remain on the gold standard, and so long as sterling is below par. Since our principal competitors in neutral markets are on the gold standard, while a considerable part of the necessary raw materials comes from countries not on it, the advantage for British exporters is considerable. They are also helped by the Chinese boycott of Japanese goods and by some improvement in the purchasing power of silver.

Consideration of the constituents of the Cost of Living Index suggests that any increase in sterling prices of imported food due to the exchange will not raise the index as much as 5%, while the seasonal rise due in the coming three months is about $2\frac{1}{2}\%$. There will therefore be little inducement towards higher wages.

At the same time imports from gold-standard countries will be checked. In 1929 80% of so-called manufactures imported were from such countries, but only 50%

of materials. A stimulus to production for the home market is therefore to be anticipated. It is not, of course, possible to say how far the uncovered adverse trade balance will be met by reduction of imports, how far by increase of exports.

Against this favourable view of the immediate prospects of British manufacture, we must put a possible further fall in world gold prices and uncertainty as to their future movements, and uncertainty as to the future course of sterling exchange, both of which militate against increase of manufacture or production; and the possibility that other competing countries will be forced off the gold standard.

More generally the advantage to British manufacture is to some extent to the disadvantage of other countries. On a wider view the main causes of the world depression continue, and are even accentuated by difficulties in the United States, Germany and elsewhere. A collapse of credit or currency in any country, which is by no means beyond possibility, will have disastrous effects on our trade, while the continued impoverishment of some of our important customers must prevent its healthy development. Even though the present advantage in exporting continues, it may well happen that it will be neutralised by a further general diminution in the world's international trade.

UNITED STATES. HARVARD FORECAST. (By Cable.)

October 17th, 1931.

The recent large gold withdrawals from the United States have come at a time when currency in circulation has been expanding rapidly and deposits of commercial banks have been declining. Accordingly they have led to advances of New York rediscount rate from the very low figure established last May. Business attained only part of the usual seasonal gain during September. The failure of autumn trade as a whole to reach

season expectations is attributable in great part to unfavourable financial developments here and abroad. Measures to mobilize bank resources and facilitate liquidation of failed banks promise a measure of relief from the pressure upon the banking situation. While too late to stimulate autumn business since the period of seasonal expansion is terminating, they are likely to benefit business as well as financial conditions in the coming months.

UNITED STATES

(Harvard Economic Society).

FINANCIAL AND BUSINESS CONDITIONS. (Extracts from letter of Oct. 3rd, 1931.)

THE INDEX CHART.—The decline in stock prices is reflected by another considerable drop of the speculation curve (A) of our monthly index chart. As a month ago, the movement of the curve means that the stock market has not yet shown the improvement which will precede, or at least accompany, a cyclical upturn of the business curve. The cause for the September decline probably lies chiefly in developments abroad. Foreign sales of securities on our markets increased prior to the suspension of gold payments by Great Britain, and prices moved sharply downward. Some further selling from abroad has doubtless occurred subsequently. Both stock and bond prices were declining as the month closed.

The further decline in stocks and in business has come with money rates— Curve C of the monthly index chart—at an extremely low level. Failure of this condition to stimulate stocks or business is attributable partly to lack of confidence, but also partly to the fact that low money rates are now confined to the United States and some other creditor nations, such as France. Until the second quarter of this year, the decline in money rates here had been accompanied by easier conditions in most of Europe, but since that time rates have tended to rise in debtor nations and even in such a creditor nation as Great Britain. Thus money is not cheap in those countries where unfavourable developments affecting economic conditions and business sentiment in the United States have occurred.

Obviously, this situation in world money markets must be taken into account in interpreting the position of the curves on the index chart. Even though Curve C (money) remains low, therefore, we believe that further declines of Curves A (speculation) and B (business) are possible, since money is high in countries where financial unsettlement prevails which has adversely affected business conditions here. On the other hand, departure of Great Britain from the gold standard relieves the strain imposed by the maintenance of the pound at par, and may prove an important step in the cure of business depression throughout the world.

DEVELOPMENTS OF THE WEEK.— Further repercussions of the unsettlement in Europe have been evident here this week. Gold has been earmarked in large quantities, as European central banks converted their balances here to gold. With foreign banks selling acceptances, the federal reserve banks added to their holdings, while they lost gold through the increase in earmarkings. Moreover, gold exports have continued, but the metal has moved to those countries where interest rates are low and exchange rates high, so that it does not equalise the distribution of gold or tend to stabilise conditions in countries otherwise situated. The Scandinavian nations, Norway, Sweden and Denmark, suspended gold payments shortly after the British action. Gold imported at New York this week came largely from Argentina, the shipment from that country representing a special transaction to meet maturing obligations here.

Money in the United States displays greater firmness, although rates continue at very low levels. Bankers' acceptances (90-day) rose '375 per cent. in two weeks, and an advance in time money has caused a rise in our weekly money index (time money and commercial paper). Furthermore, the average rate of discount at which bids were accepted for the latest issue of Treasury bills was about 1'22 per cent., compared with 0.62 for the issue made near the end of August. Stock and

bond prices underwent further severe

declines during the week.

The Annalist index of commodity prices was unchanged this week, an increase in food prices offsetting declines in most other commodity groups. On the other hand, our sensitive price index, which includes certain commodities entering largely into international trade, declined sharply.

Conclusion. — Departure of Great Britain from the gold standard relieves the strain which the attempt to maintain the pound at par had placed upon the

world's markets, and has caused money rates here to rise. Suspension of gold payments, however, will probably afford a stimulus to British business favourable to world recovery, though certain things—as adverse political developments in Great Britain—may impede improvement there. Unfavourable money conditions still continue abroad, but Great Britain's departure from the gold standard may prove an important step toward improvement of business conditions throughout the world.

CANADA.

Information communicated by the Canadian Economic Service, McMaster University, Hamilton, Ontario.

October 5th, 1931.

Events during the month were entirely overshadowed by the momentous decision of the British Government to discontinue payment of gold for notes at the Bank of England. The effect upon Stock Exchange values does not need any more eloquent demonstration than our weekly index number of prices of shares.

It will be noticed, however, that the severe decline had set in well before the announcement from London, and the average for the week ending September 18th fell almost as heavily as in the next

week. That affairs in Europe were approaching to a crisis was, of course, well known, and the exchanges were discounting the events well before they came to a head. After the plunge downwards from September II to 25 the markets steadied, mostly, it must be admitted, owing to severe restrictions with regard to minimum

prices. This steadying, however, was a

sign more of a stunned apathy than

anything else,

The index number of wholesale prices used in this Service continued to decline during September; at the end of September it was 1.8% lower than a month before and 16% lower than a year before. The sub-index of 20 foodstuffs declined 2.3% in the month and 19% in the year. The price of potatoes was the lowest recorded since 1901; wheat was at the lowest price since 1894. sub-index of 20 manufacturers' goods declined 1% in the month and 11.5% in Wool (Ontario and Eastern) fell to the lowest price recorded since 1909, cotton (upland middling) to the lowest since 1895, copper to the lowest since 1896. There were no rises.

At the present moment it is impossible to say anything definite with regard to the immediate future of prices of commodities. All that can be said is that there is a distinct probability of prices steadying and perhaps rising owing to the action of Great Britain in abandoning bullion payments. But we have yet to see whether there will be anything in the nature of inflation, voluntary or involuntary, of the note issue in Great Britain.

The movements in total assets and current loans were entirely seasonal during August and call for little comment.

There was a shrinkage of over 71 millions in assets, and a slight increase in loans. The fall in total assets, while apparently heavy, was by no means

unprecedented.

The index of physical volume of production continued to fall during June and July. From 125.4 in May it fell to 123.6 in June and 121.7 in July. This compares with 136.5 for July, 1930; 147.9 for July, 1929; and 138.1 for July, 1928. The index is now at the lowest point since the end of 1925. While the production of foodstuffs is slowly, but quite surely, rising in volume, it is in certain lines of manufacture that the serious fall is evident. Iron and steel, coal, all the wood products, newsprint, motor cars, rubber products, are all down, and, as far as can be seen at

present, there seems no immediate prospect of improvement. The textiles and boots and shoes are holding their own, and the conclusion is quite evident that while the population slowly increases, and people must eat, be clothed and shod, they are refraining from buying anything that is not absolutely necessary. The number of motor cars now being produced is certainly below ordinary replacement requirements, and such luxury trades as radios are at a very low ebb.

Summing up the situation, all that can be said is that at the moment no single sign of improvement is visible, while at the same time it is also equally true that no warning of disaster is present. The prospect for the rest of the year is

continued depression.

RECENT MOVEMENTS OF SUBSIDIARY SERIES.

THE UNITED KINGDOM.

FINANCE.—The index number of industrial security prices rose from 78 in mid-September to 85 at the end of the month, and further to 87 in mid-October. That is, it is at about the same level as in mid-July and lower than at any date prior to May of this year.

The sensitive index number has been more active: in the last week of September it rose about 8% and in the four weeks to October 15th about 16%.

The index of fixed interest security prices, conversely, fell from 98 to 87 in the latter part of September, touching a very low level, but has since recovered to 92.6, near the entry for two years ago.

The Bank Rate was raised from $4\frac{1}{2}\%$ to 6% on September 21st. The short money index rose from 126 to 173 and has during October remained near 168, with the 3 months' rate near 5.7%.

Capital issues have been negligible for the United Kingdom and practically nonexistent for abroad in August and September.

Bankers' Advances have moved very little since July, but with a fall in Deposits

the ratio of Advances to Deposits has increased from 51.3 to 53.6%.

Bank Clearings in September showed a marked falling off, both Town, Country and Provincial. There has been some increase in Provincial Clearings in recent weeks.

Bankers' Deposits at the Bank of England, after falling from £71 Mn. in June to £58 Mn. in August, increased to £70 Mn. in mid-October.

The following table shows gold movements at the Bank up to the suspension of gold payments.

GOLD MOVEMENTS TO AND FROM THE BANK OF ENGLAND. £000.

	1927	1928	1929	1930	1931
January February March April May June July August Sept'mber October November December	- 16 - 1180 + 401 + 2211 - 1545 - 1140 + 699 - 586 - 770 + 671 - 1212 + 1252	+ 3945 + 21 - 149 + 2403 + 2320 + 8466 + 2106 + 1244 - 4762 - 5233 - 5088 - 6594	197 1424 +- 1680 +- 4660 +- 5021 7085 14347 6617 5615 +- 12315 +- 12035	+3953 +1071 +4794 +7126 -6628 + 73 -4438 +2458 - 548 +4770 -5020 -8004	7549 + 622 + 2766 + 2684 + 4712 +11415 - 30712 + 1141 - 980*
	<u> </u>	- 1321	— 8228	— 393	—159 0 3*

^{*} To Sept. 20th.

PRICES AND WAGES.—In the future we have to consider separately the movements of world gold prices and of sterling prices. As is always the case in periods of rapid or radical change, indexnumbers tend to lose their precision.

For gold prices the best source is Professor Irving Fisher's index-number of American prices, which, as given in the *Financial Times*, shows a reduction of 1% between the third week in September and the second week in October. The movement from June to September had been very slightly downwards.

The *Economist*, however, finds a fall of 4.3% in gold prices from September 18th to October 14th, the index being based on 18 commodities only, viz., wheat, maize, oats, linseed, coffee, cocoa, sugar, lard, bacon; cotton, wool, cotton-seed oil, copper, tin, rubber, lead, pig-iron and petroleum.

For precisely the same commodities, the sterling prices show a rise in the same four weeks of 8.3%.

Thus sterling prices have appreciated in gold prices $(108\cdot3\div94\cdot7)\times100-100$, that is 14%. On the other hand sterling exchange had fallen from 4.86 to 3.88, which on purchasing-power-parity corresponds to a rise of 25%.

An alternative computation shows falls in United States prices from September 14th to October 19th as follows:—materials (pig-iron, coke, lead, tin, copper, cotton, wool, tallow, petroleum, linseed) 3.2%, while a similar list in sterling results in a rise of 14%. If we include also spelter, cotton-seed oil, raw silk, cotton yarn, cotton grey goods, wool tops and worsted yarn, the fall in U.S. is 5%. But food in U.S., (wheat, maize, oats, coffee, cocoa, lard, sugar, bacon) rose 3.5%, and the resulting index number for 25 commodities (food and materials) gives a fall of 2%.

Some further movements must take place before equilibrium is reached, whether it be a further fall in gold prices or a rise in sterling prices.

In the Cost of Living index-number clothing, rent and fuel account for 36% of

the weighting and in these little or no change is to be expected in consequence of higher gold prices. In food and miscellaneous goods (60 and 4%) perhaps half the cost is attributable to imports and half to home-produced goods and services of transport and distribution. In all about one-third of the index-number is affected by gold prices as distinct from sterling. But approximately half the food, as shown on p. 8, is from countries not on the gold standard, so that only onesixth of the whole index is affected. On this sixth the full appreciation of gold on sterling is 25%, so that an increase in the index-number from this cause would be approximately 4%. When the ratio of gold prices to sterling prices approaches the ratio of sterling exchange to parity, it appears that there will be an increase of some 4% combined with any movement due to a change in gold prices or seasonal causes. Unless, then, there is a radical change in one of the factors, the movement of the Cost of Living index numbers due to leaving the gold standard will be trifling.

TRADE AND OUTPUT.—The statistics for September show an increase of imports more than seasonal in food and manufactures and some reduction in manufactures. Exports show a very It is worth slight general increase. remarking that for the first time on record the value of imported so-called manufactures (£22.6 Mn.), exceeded that of exported manufactures, home-produced, (£22.2Mn.); but the difference is still on the other side if re-exports of manufactures (£1.4 Mn.) are brought into account. The figures for the third quarter are discussed sufficiently on p. 10. It is more interesting in present circumstances to consider what proportion of imports and exports is likely to be affected by the altered exchange value of sterling.

In the following table most of the countries which now are not on the gold standard are distinguished. The list is not complete, but the totals are roughly balanced by including the whole of South America. Statistics are not yet available

£ Mn.	Food, &c. I		of U.K. In 1929 M'f'tures		6 mos. 1931. Total.	Food, &c.		oss Impor In 1929. M'f'tures	Total.	6 mos. 1931. Total.
Sweden Norway Denmark Finland Portugal and Dependencies	.7 1.0 .9 .7	2·2 1·2 1·9 ·4 1·2	7·5 7·5 7·7 2·2 6·3	10.5 9.9 10.7 3.4 8.1	3·7 3·5 4·3 ·7 3·0	4·8 2·6 54·4 2·0 3·4	12.6 6.3 .7 9.9 1.4	8·3 5·1 1·0 3·1 ·5	25·7 14·1 56·2 14·9 5·4	7·2 4·2 22·7 4·1 1·7
Irish Free State	8·0 4·6 ·7 3·1 1·9 ·1 2·8	3·2 ·6 ·2 ·7 ·2 ·0 2·0	22·1 71·6 4·9 49·6 18·4 2.0 28·8	36·1 78·2 5·9 54·2 21·4 2·4 35·0	15·0 17·2 1·4 7·0 5·3 1·3 11·4	37·5 24·7 12·6 26·0 32·3 6 29·1	1·9 24·9 2·3 26·0 15·2 ·7 6·1	1.9 12.8 .2 3.3 .2 .3 10.2	45·1 62·8 15·1 55·6 47·7 1·6 46·4	16·7 16·2 6·7 24·1 23·0 ·6 13·2
Egypt and A. E. Soudan S. America* and Mexico		2·0 5·1	11·0 59·1	14·4 67·0	3·7 15·8	2·2 85·8	27·0 29·8	•2 8·3	29·5 123·9	5·6 40·1
A. Total of above	28.0	20.9	298.7	357-2	93.3	318.0	164.8	55.4	544.0	186 1
B. Other Countries	27.5	58.0	275.1	372.1	105.8	217.5	174.8	279.0	676.8	231.8
C. Total, all Countries	. 55•7	78.9	573.8	729.3	199-1	535.5	339.6	334.4	1220.8	417.9
Percentage, A to C	. 50	27	52	49	47	59	49	17	45	45

^{*} ALL South America, i.e., including some Countries not off Gold Standard.

for the third quarter of this year, but the aggregates for the first half are given. To show the division into food, materials and manufactures it has been necessary to go back to 1929.

Among imports, in 1929, about 60% of the foodstuffs came from countries whose currency is not bound to gold, and 40% from gold standard countries. Among materials the proportions from the two groups are nearly equal. Of manufactures over 80% were from gold standard countries. The change in sterling is therefore strongly protective against imported manufactures.

Of exports, about 73% of materials (chiefly coal) already went to gold standard countries and therefore will have an advantage in competition. In manufactures nearly equal values went to the two groups.

To complete the picture we should need more elaborate tables of exports of all countries to neutral markets; but this is sufficient for rough computations of the possible effects of the change in sterling.

Unemployment.—There was a slight but rather general increase in unemployment between August 24th and September 21st. A small part of it was seasonal, but the increase in building unemployment was more than normal.

Excluding coal, where there was some improvement, the figures are:—

UNEMPLOYMENT IN INSURED INDUSTRIES, EXCLUDING COAL (000's).

1931.	Unemployed.	Temporary Stoppages.	Total.
August, 24th Sept., 21st	Males. 1455 1515	335 342	1790 1857
	Females.		
August, 24th Sept., 22nd	481 493	212 212	693 705

The estimated cost of Building Plans approved was £16,200,000 in the third quarter of 1931 as compared with

NUMBERS (000's) ON LIVE REGISTER OF LABOUR EXCHANGES.

of the first the first state of the contract of			
Wholly	Temporarily	Total*	Total*†
Unemployed.	Stopped.	1931.	1930.
	Men.		
27 1382	501	1992	1431
24 1435	440	1986	1437
	428		1485
			1496
28 1531			1535
5 1555			1555
L2 1567	373	2053	1572
	Women.		
27 399	193	595	476
24 414	195	611	488
.4 424	205 .		503
21 431			501
28 438			513
5 442			508
.2 444	139	585	506
	Unemployed. 27 1382 24 1435 14 1483 21 1502 28 1531 5 1555 2 1567 27 399 24 414 4 424 21 431 28 438 5 442	Unemployed. Stopped. Men. 27 1382 501 24 1435 440 14 1483 428 21 1502 434 22 1551 429 5 1555 391 22 1567 373 Women. 27 399 193 24 414 195 4 424 205 21 431 195 22 438 178 442 155	Unemployed. Stopped. 1931. Men. 27 1382 501 1992 24 1435 440 1986 14 1483 428 2020 21 1502 434 2046 22 1551 429 2071 25 1555 391 2059 22 1567 373 2053 Women. 27 399 193 595 24 414 195 611 24 424 205 632 21 431 195 628 22 438 178 619 5 442 155 600

^{*} Including Casuals.

[†] One day later (July 28th, &c.) in 1930,

£17,100,000 a year before. These figures exclude the London area.

The live register figures since Sept. 21st show some improvement in women's employment, which was the net result of an increase of 13,000 in those wholly

unemployed and a decrease of 56,000 in those temporarily stopped. But in the same period wholly unemployed men increased by 65,000 and temporarily employed decreased by 61,000, showing a net increase.

FINANCE, TRADE AND PRODUCTION IN THE UNITED KINGDOM IN THE THIRD QUARTER OF 1931.

PINANCIAL and price statistics have been influenced first by President Hoover's proposal for a moratorium at the end of June, then by the continual pressure of the return of short loans to abroad and the loss of gold which led to the establishment of the National Government on August 24th, and finally by the breaking of the equivalence of gold and sterling on September 20th.

The index number of industrial securities rose from 82 in mid-June to 90 at the end of June, then fell by successive stages to 78 in mid-September. It then recovered to 85 at the end of the quarter. At the same dates the index of fixed interest securities stood at 104.6, 106, 98 and 87.

The Bank Rate was reduced from 3 to $2\frac{1}{2}\%$ on May 14th, raised to $3\frac{1}{2}\%$ on July 25th, to $4\frac{1}{2}\%$ on July 30th, and to 6% on September 21st.

Bankers' Advances averaged £897 Mn. in the third quarter of 1931, being 2% less than the previous quarter and 4% lower than a year before.

A more serious fall occured in Bank Clearings and Town Clearings in the third quarter of 1931, £7,932 Mn., 9% less than in the second quarter and 17% less than a year ago. Country and Provincial Clearings did not fall so much, but the latter, at £285 Mn., were 26% less than in 1929, the last quarter before the depression.

New Capital Issues have been very low, both for United Kingdom and

for Abroad; for the latter they have been practically non-existent since July.

Prices and Wages.— During the quarter, or at least till September 23rd, there was no considerable movement of commodity prices, but there was a continual tendency downwards. The whole movement is well shown in the following table:—

BOARD OF TRADE INDEX NUMBER OF WHOLESALE PRICES.

Average for each month.

1924=100. 1929 1930 1931 1931
 Sept.
 Sept.
 June.
 Sept.

 87.8
 ...
 65.4
 ...
 54.6
 ...
 53.2

 93.0
 ...
 89.9
 ...
 74.6
 ...
 75.5

 78.4
 ...
 70.6
 ...
 76.6
 ...
 68.1
 Cereals ... Meat and Fish ... Other Foods ... Total Foods 74.4 80.3 ... 78.1 ... 72.7 ... 71.2 Iron and Steel ... 69.4 ... 68.9 ... 72.0 Other Metals and 74.9 ... 61.2 Minerals 67.6 ... 49.4 ... Cotton ... 41.9 ... 75.2 ... \\ 54.0 ... 44.2 ... 41.6 Wool Other Textiles ...

87.4 ...

79.5

76.6 ...

67:0

66.8 ...

59·1

Miscellaneous ...

Total, not Food

It will be seen that in the last three months there has been a reduction in the price of each class except meat and fish and coal. The index numbers for July and August, 1931, were 61.5 and 59.9. The rise in prices in the last week of September (see p. 7) raises the figures for the average of that month very slightly above what they would have been if the fourth week were excluded.

Retail food prices were about 1% lower on October 1 than on July 1; but normally there is a rise during the third

quarter, and when the seasonal influence is eliminated we find a fall of about 3%. During the twelve months, October to September, the fall has been 10%, which is almost the same as the fall in the wholesale price of food, whether we take the twelve months ending September, or, allowing for a time-lag between wholesale and retail movements, the twelve months ending June.

There have been some reductions in wage-rates during the quarter, but they are neither in large industries nor of large amounts; so that the change in the average is less than 1% in the quarter, and barely 2% in twelve months.

TRADE AND OUTPUT.—Imports of food were maintained during the quarter, and when the fall in prices is allowed for it appears that the quantities are as great as a year and as two years before. For the first nine months of 1931 the imports of grain, meat and butter have been greater than in previous years, corresponding with the increase in the population. There has, however, been some falling off in tea and sugar imports, but allowance for changes in stocks shows that consumption of both these items increased.

There has been a considerable reduction in twelve months in the value of materials imported, and some reduction since the second quarter of 1931. How far fall of prices accounts for this reduction will be discussed in next month's "Bulletin."* In the "Bulletin" for August, 1931, p. 257, it is shown that there has been a falling off in quantity compared with the previous year from the first quarter of 1930 onwards, or, excluding cotton and wool, from the third quarter of 1930.

Imports of so-called manufactured goods have been maintained throughout the first three quarters of 1931 at a value about 20% lower than in 1930 or 1929.

Exports of manufactured goods were approx. £71 Mn. both in the second and third quarters of 1931; normally the third quarter totals rather more than the second. The reduction since last year (£35 Mn. in the third quarter) is very serious, and extends over all the main categories of goods. The table on p. 14 shows that the reduction is also widely distributed among countries. The export of coal has also been about 1 Mn. tons per month less than last year.

The tonnage of shipping laid up in U.K. ports was 1,708,000 net tons on October 1st, as compared with 1,694,000 on July 1st and 885,000 on October 1st, 1930.

Production of coal, iron and steel was definitely lower in the third than in the second quarter of 1931, the reduction being more than normal, but the index of production as a whole (see p. 16) is fractionally higher in the third quarter, though normally there is some reduction. This apparent discrepancy is due to an increase in the food and tobacco, chemicals and paper groups.

In fact there has not been any great deepening of the depression during 1931. Though the number of unemployed has increased, this increase has only equalled the net number of entrants into insured industries, which corresponds with the growth of the male population.

		n	stimate umber o insured	£	Number un- employed	e all	Number mployed owing fo	ı.	Perce		
72 N			persons				sickness	Ŀ	Imploy	- P	
Quar	rters		000's		000's		000's		ment		tion
1929	3rd		11870		1156		10297		100		100
1930	1st		11995		1552		10021		97		101
	2nd		12115		1784		9868		96		93
	3rd		12197		2056		9712		94		84
	4th		12290		. 2317		9540		93		86
1931	1st		12380		2595		9308		90		79
	2nd		12467		. 2550		9474		92		74
	3rd		12550		. 2758		9342		91		75

Production as here recorded has, over two years, decreased more than employment. The difference is probably to be found in finished goods for the home market and distribution. The statistics of turnover of retail trade (principally clothing) indicate a fall of only 2.8% from August, 1930, to August, 1931, while prices have probably fallen more.

^{*} In the Board of Trade Journal for October 22nd, the estimated values of retained imports of raw materials in the past four quarters at average values of the year 1924 are given thus, in £Mn:—1930 4th qr, 86; 1931 1st qr. 80, 2nd qr. 75; 3rd qr. 63. Corresponding estimates for exported manufactures were 123, 103, 98, 102.

SUMMARY OF QUARTERLY STATISTICS.

TOTALS.*	1928			29			19	930			1931	
TOTALD,	4th Qr.	Lst Qr.	2nd Qr.	3rd Qr.	4th Qr.	lst Qr.	2nd Qr.	3rd Qr.	4th Qr.	lst Qr.	2nd Qr.	3rd Qr.
BANK CLEARINGS: Town (ex Metropolitan) Country Provincial (11 Towns) BANKERS' ADVANCES:	£ Mn. 10003 776 420	£ Mn. 10316 764 427	£ Mn. 9514 769 387	£ Mn. 9941 757 386	£ Mn. 10165 790 399	£ Mn. 10292 771 385	£ Mn. 9782 742 333	£ Mn. 9529 720 311	£ Mn. 9180 730 319	£ Mn. 9079 717 319	£ Mn. 8745 677 287	£ Mn. 7932 664 285
Average for Quarter NEW CAPITAL ISSUES in Gt. Britain:	942	968	980	979	971	973	962	938	920	913	917	897
All For United Kingdom IMPORTS RETAINED:	93·3 64·7	114·2 69·0	81·3 55·1	28·4 17·5	29·7 17·8	69·5 36·3	72·4 37·4	28·0 19·0	66·3 34·7	45·4 21·2	25·5 6·7	8·2 5·2
Food, Drink and Tobacco	135	125	120	126	139	114	108	107	123	93	94	96
Materials: Partly Manufactured Cotton Other Total Wholly Manufactured Goods Total Retained Imports EXPORTS, BRITISH:	12 26 45 83 61 282	11 25 53 89 60 276	13 15 53 80 66 268	12 9 53 74 65 268	14 24 54 92 65 2 99	11 16 51 78 64 259	10 9 43 62 65 233	9 5 42 56 60 225	9 12 35 57 58 240	8 7 32 47 50 192	8 6 29 43 50 190	7 4 29 40 52 191
Materials Manufactures—Cotton Other Total British Exports	19 36 111 188	19 38 107 181	21 33 107 178	19 34 112 185	20 31 113 186	19 30 98 164	16 22 88 141	15 19 86 136	15 16 80 129	12 15 63 103	12 13 58 96	11 14 57 93
Goods and Bullion	82	92	93	55	125	106	94	87	106	82	114	65
TONNAGE OF SHIPS (with cargoes): Entered from abroad Cleared for abroad	0000 Tns 1549 1636	1316 1553	0000 1589 1728	Γons 1775 1863	1590 1723	1392 1610	0000 1659 1656	Tons 1756 1738	1565 1581	1329 1358	0000 Tons 1528 1477	1667 1541
PRODUCTION: Coal (13 weeks) Pig-iron (3 months) Steel ,, ,, Shipbuilding (commenced)	0000 Tns 6154 163 220 000 Tons 432	6813 167 240	0000 6265 192 248 000 428	6284 202 241	6701 196 237 499	7014 192 237 427	5911 180 199	Tons 5634 133 165 Tons 161	6164 115 128 132	5948 101 139	0000 Tons 5479 99 126 000 Tons 23	5111 84 119
INDEX OF PRODUCTION: Bulletin % of 1924 Board of Trade ,,	105·2 108·4	108·3 110·6	111:0 112:0	108·2 110·7	114·8 114·0	109·6 111·0	100·9 103·1	90·7 99·4	92·7 99·0	85·1 95·0	80.6 92.1	81.5

^{*} Except Bankers' Advances, for which mean weekly averages are given.

INDEX NUMBERS.		1928		19	29			19	30			1931	
Percentage of 1924 level.	Date in Quarter	4th Qr.	1st Qr.	2nd Qr.	ðrd Qr.	4th Qr.	lst Qr.	2nd Qr.	3rd Qr.	4th Qr.	lst Qr.	2nd Qr.	3rd Qr.
PRICES OF COMMODITIES— General—Board of Trade Statist		83·1 85	84·4 87	81·6 81	81·7 81	79·7 78·5	74·9 74	72·6 6 9	69·5 65	65·5 62·5	63·7 61·5	62·1 59·5	59·7
Materials—Board of Trade Statist	Last month Last day	80·0 84	81·2 87	79·1 80·5	79·5 79· 5	77·1 76	73·4 72	70·4 66·5	67·0 62·5	63·3 59	62·1 58·5	59·1 56	57 ·(
Food—Board of Trade Statist	Last month Last day	89·1 85	90·3 86	86·2 83·5	85·8 83	84·6 81	77·7 76	76·6 72·5	74·4 70	69·8 67·5	66·8 66	68·1 65	64· 6
Retail—Food	Last day	93 95	88 92:5	87·5 92	91·5 94·5	92 9 5	84 90	83 88 · 5	84 89	81 87·5	76 84`	76 84	7 8
Wage Rates	Fortnight after end	99.5	99.5	99.5	99	99	98.5	984	984	984	97	97	9
PRICES OF SECURITIES— Industrials Fixed interest	7 7	149 1 0 1-1	143 97-9	136 96:0	135 93·9	124 95·5	120 10 0 -3	112 99·7	103 101·3	96 103·5	94 100°2	86 101·5	92
SHORT MONEY	,, ,,	125	158	160	189	136	82	69	65	68	75	62	1

IRON AND STEEL STATISTICS FOR U.K. 000 tons.

		P	IG-IRO	N.†				CRUD	E STEE	L.	IRON &	RTS OF STEEL
		Produc- tion	+ Im- ports	- Ex- ports	=Home Cons'mp- tion	% Imports to Home Consump- tion	Pro- duction	*Im- ports	Home Con- sumption	% Imports to Home Con- sumption	Semi- Finished	Finished
1913	Qrly. aver'ge	2565	46	236	2375	1.9	1916	215	2131	10	209	751
1923	,,	1860	27	223	1664	1.6	2122	138	2263	6·1	5 40	1153
1924	,,	1840	77	150	1756	4.4	2054	271	2324	11.7	470	1146
1925	,,	1559	71	140	1490	4.8	1849	289	2139	13.5	188	600
1926	27	610	124	148	653	1.9	890	390	1280	30.5	145	521
1927	,,	1826	152	83	1895	8.0	2275	421	2695	15 [.] 6	251	712
1928	1 2 3 4	1704 1718 1561 1628	53 27 14 26	104 116 101 134	1653 1629 1474 1520	3·2 1·6 ·9 1·7	2184 2105 2034 2202	329 287 252 277	2513 2392 2286 2479	13·1 12·0 11·0 11·2	219 246 243 272	734 702 652 720
1929	1 2 3 4	1674 1924 2018 1963	30 29 55 39	143 156 167 79	1561 1797 1906 1923	1.9 1.6 8.7 2.0	2404 2483 2406 2366	200 268 252 270	2604 2751 2658 2636	7·6 9·7 9·5 10·2	265 237 250 258	737 692 653 716
1930	1 2 3 4	1923 1797 1328 1149	72 68 109 62	107 84 87 39	1888 1781 1350 1172	3·8 3·8 8·1 5·3	2374 1988 1653 1284	334 245 210 300	2708 2233 1863 1584	12·3 10·9 11·3 18·9	225 159 150 139	647 567 506 426
1931	1 2 3	1012 993 841	67 83 62	48 63 44	1031 1014 859	6·5 8·2 7·2	1389 1261 1186	227 294 302	1616 1555 1489	14·0 18·9 20·3	99 98 88	331 355 316

[†] Inc. Ferrous Alloys.

TABLE A. NET IMPORTS OF RAW MATERIALS (EXCLUDING RUBBER) AND CERTAIN PARTLY MANUFACTURED GOODS. DECLARED VALUES. £ Mn.

	1924. Quarterly Average.	1928. Qr. 4	1		1929. arters. 3	4	1		980. rters. 3	4	1	1931. Quarters 2	s, 3
Pig iron, etc Copper, tin, lead, zinc Yarns Leather	1.8 5.4 1.8 2.9	1·3 5·6 1·9 3·5	1·1 5·0 1·8 2·9	1·4 6·2 2·1 3·1	1·3 5·4 2·0 2·9	1.4 5.8 2.1 4.8	1.6 5.0 1.8 3.0	1.2 4.6 1.5 2.9	1.2 3.9 1.3 2.8	1:3 3:4 1:6 3:1	1.0 3.1 1.3 2.3	·9 3·4 1·2 2·5	-9 2·6 1·1 2·4
Minerals (non-metals) Iron Ore Other Metals Wood Oil Seeds, &c Hides Paper Materials Silk Other Textiles (except	1·3 2·1 3·7 12·6 12·1 2·0 2·9	1·3 1·1 4·4 12·6 9·4 1·4 3·0 ·6	1·2 1·4 3·9 5·9 11·7 1·2 2·5	1·3 1·5 5·1 7·8 10·7 ·9 3·4 ·4	1.5 1.8 3.7 17.4 9.7 2.9 3.4	1.4 1.8 3.9 13.9 9.8 2.5 3.7	1:3 1:7 3:7 6:9 9:1 2:7 2:9	1.4 1.6 3.6 9.0 9.2 .8 3.2	1·2 1·0 2·5 15·4 7·3 1·9 3·0 ·2	1.0 .9 2.3 11.0 6.8 .9 3.0	1.0 .7 1.8 4.2 6.6 .9 2.3	·9 ·7 2·0 5·4 6·9 ·0 2·0 ·3	.9 .5 1.5 11.2 5.3 1.2 2.6
Cotton and Wool) Cotton Wool	3·4 27·5 10·9	3·4 26·5 3·9	4·9 25·2 14·1	3·3 15·4 13·5	2·0 8·6 4·5	4·0 23·6 6·1	4·0 16·3 12·5	2·3 8·7 7·3	1·1 4·6 4·0	1:4 12:0 4:6	1.8 7.3 8.8	1.6 5.5 8.0	-9 3·8 2·1
Total, both groups and miscellaneous	92:8	82:7	85-8	78.5	70:3	88-2	75.7	59· 6	54.3	56.0	45.5	42:9	39:5
Total. excl. cotton and wool	54.4	52.3	46.5	49.6	57:2	58:5	46-9	43.6	45.7	39.4	29:4	29.4	33.0

^{*}Blooms, Billets, Sheet and Tinplate Bars.

		1928 Qr. 4	1	1929 Quarte 2		4	1	193 Quart 2		4	1 Q	1931 uarters. 2 3
Coke Earthenware Iron & Steel Other Metals Cutlery Electrical Goods Machinery Wood Cotton Wool Silk Other Textiles Apparel Chemicals Oils Leather Paper Vehicles Rubber	1.6 3.2 18.5 3.9 2.7 11.2 49.8 17.0 6.9 7.5 6.4 2.1 8 2.3 1.8 2.7 1.5	1.1 3.4 17.6 3.7 2.5 2.9 13.6 36.3 12.7 7.5 6.6 6.5 7.2 12.7* .8†	1.1 3.1 17.3 4.4 2.1 2.8 13.3 6.7 6.3 6.7 6.3 6.4 2.1 1.7 2.2 12.3* 8+	8 32.9 11.1 6.5 6.4 6.4 3.5 16.7 4.6 2.3 3.3 12.1 1.9 2.3 13.7*	1·1 3·7 16·3 4·6 2·4 3·2 13·3 4·7 34·1 15·3 7·0 7·2 2·1 2·1 2·5 12·5* 9†	1·2 3·7 17·6 4·6 2·5 3·8 14·3 9 30·9 11·6 6·6 6·7 7·7 2·2 2·1 2·8 11·7*	1.0 3.3 15.4 3.7 2.0 3.3 13.0 30.3 12.2 4 5.8 6.2 1.5 2.3 11.0* 8,*	6 31 13:3 3:0 1:9 2:9 12:0 5 21:6 7:2 4:4 4:3 5:6 1:5 2:1 15:2*	9 3-0 11-9 2-6 1-8 3-1 11-0 6 19-5 9-7 4-6 5-3 5-1 1-2 2-1 11-6*	1.0 2.6 10.8 2.7 1.7 2.7 11.0 .5 16.2 7.8 .3 4.1 4.4 5.0 1.1 1.9* 6†	8 2.0 8 8 0 2.0 1.3 2.3 2.3 3.8 4.1 5.5 3.8 4.3 1.6 8.3 5.5	722 21 788 69 1.6 1.7 1.3 1.3 1.9 1.6 8.2 7.3 13.4 14.1 5.0 6.8 3.1 3.1 3.0 3.8 4.6 3.9 1.3 1.2 8.2 7.0 8.2 7.0 8.2 7.0 8.2 7.0 8.2 8 8 1.5 1.6 9.0* 7.0*
Total, including Miscellaneous	154.7	147.5	145:1	138.9	146.2	143 [.] 6	128 4	110.3	104.8	96.3	78:4	72.0 70.7

^{*} Including rubber tyres.

STOCKS OF STAPLE COMMODITIES

Table supplementary to the summary table, p. 2, Special Mem. 32

Peg	finning of	(1) American Cotton. 1,000 bales	(2) Copper. 1,000 tons.	(3) Tin. 1,000 tons.	1,000 U.S.	ad.	(5) Spelter 1,000 tons.	(6) Rubber. 1,000 tons.	(7) Sugar, 1,000 tons.	(8) Tea. Mn. lbs.	(9) Coffee 1,000 bags.	(10) Wheat. Mn. bush.	(11) Petrol- eum. Mn. barrels
1929	Jan	3,494	292		32.8	0.9	42	266	4,422	220	15,703	565	624
1930	Jan April July	3,870	401 479 522	35·9 41·1 49·1	50·8 41·1 49·6	2·0 6·8 7·4	73 90 109	383 426 430	5,614 6,125 6,196	260 210 209	25,063 27,470 28,424	584 518 379	630 639 632
	Oct Nov Dec	6,097	545 554 543	47·5 47·5 47·5	65·8 75·3 80·7	6·2 6·2 7·2	131 139 142	1483 492 491	3,629 4,488 6,175	222 235 243	29,860 29,366 30,447	544 528 541	613 611 609
1931	Jan. Feb. Mar. April May June	6,578 6,888 7,000 7,051	535 525 519 510 523 551	51·0 53·1 57·7 58·4 57·9 60·0	92·2 101·0 110·0 116·5 119·2 127·1	8:3 10:5 13:2 13:5 14:0 13:6	140 142 142 140 143 146	506 526 533 547 552 543	7,018 7,218 7,573 8,453 8,270 7,779	262 274 270 242 212 205	29,309 28,829 28,457 28,292 27,504 26,351	583 602 630 600 531 490	603 597 593 591 592 591
	July Aug Sept Oct	7,571 8,114	564 582 596 623	60°4 60°1 61°5 59°9	124.6 119.6 116.1	13·5 14·4 13·9 13·2	144 139 138 138	545 560	7,007 6,086 5,3681	203 198 206 195	25,537 27,827 30,012	445 463	587 583 569

[†] Provisional.

[†] Excluding rubber tyres.

[&]quot;U.S.A. Afloat" no longer available.

Total supply seasonally corrected, exclusive of European and Asiatic mill stocks.
 Total supply outside hands of consumers less Japan Stocks.
 London Metal Exchange Visible Supply plus "Tin" estimate of Straits Stocks.

⁽⁴⁾ U.S. and Mexico refined stocks to April, 1930. U.S. only since: U.K. stocks in official warehouses.

⁽⁵⁾ Visible supply in U.K. and U.S.

since.

(9) Visible supply in Brazil (Ports and Interior). Europe & U.S.A.

(10) Stanford Wheat Studies Estimate of World's Visible Supply.

(11) Stocks of Crude and Refined Oils in U.S.

EXPORTS OF MANUFACTURES.

Value of chief articles exported in the Third Quarters of 1930 and 1931 to the principal countries concerned.

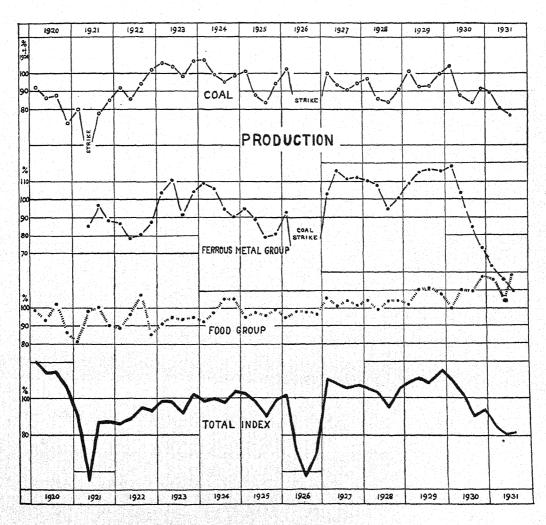
	3rd Qr. 1930 1931		3rd Qr. 1930 1931	And the state of t	3rd Qr. 1930 1931
	£000		£000		£000
POTTERY, Erc. U.S.A	138 78	RAIL LOCOMOTIVES (Steam and other)		Cotton Piece Goods—continued	
Brazil	37 10	Argentine	90 17		2384 1624 117 115
Argentine British S. Africa	79 90 48 53	Rest of S. America British S. Africa	41 6 71 7	States	206 99
British India	39 31 124 48	British India Other Countries	176 252 329 100	Australia	1186 1096
New Zealand	109 58 198 162			Canada	340 250 288 208
Canada Other Countries	376 241		707 382	Other Countries	1658 1221
	1148 771	MACHINERY (Electrical).		To S. Ireland	13171 9421 225 180
To. S. Ireland	75 82	Europe S. America	302 363 124 82	WOOL TOPS & WORSTED	225 180
DIG IDON & WEDDO AT LOVE		S. Africa	93 87	YARN.	132 136
PIGIRON & FERRO ALLOYS Belgium	51 26	Australia	271 123 191 29	Germany	475 277
France	42 29 36 10	Other Countries	495 338	Canada	59 75 269 170
U.S.A Other Countries	45 6 195 186		1476 1022	Other Countries	846 764
Other Countries		MACHINERY (Prime Movers,		To S. Ireland†	1781 1422
	369 257	not electrical). Russia	45 22		52 43
PLATES & SHEETS (not		France	28 35 18 11	WOOL & WORSTED TISSUES Germany	576 295
coated).	E0 101	Rest of Europe	43 91	Netherlands Belgium	216 150
Japan British India Australia & New Zealand	78 46	Dritish S. Airica	67 42 50 54	France	268 213
Australia & New Zealand Other Countries	109 50 523 259	British India and Ceylon Straits Settlements	203 107 17 8	Other European Countries	243 105 494 558
	760 456	Australia Other Countries	69 22 330 169	China	453 376 222 227
				U.S.A	299 152
GALVANISED SHEETS.			870 561	Chile and Peru Brazil, Uruguay, Argentine	145 45 792 453
Dutch E. Indies Argentine, Uruguay	39 27 56 12	TEXTILE MACHINERY.	164 14	British S. Africa Australia	203 210 66 11
British W. Africa	73 30 100 99	Germany	100 78 130 55	New Zealand	127 70
British India	208 138	Prance	173 93	Canada Other Countries	615 329 1147 782
Australia	106 2 87 38	Rest of Europe China	361 253 193 84		6085 4123
Other Countries	577 393	Japan	99 88 60 41	To S. Ireland	151 124
To S. Ireland	1246 739 80 63	S. America	52 47 622 391	LINEN PIECE GOODS. U.S.A	209 270
10 S. Peland	80 63	A netrolio	39 21	Cuba	17 7
SHEETS (Tinned, etc.)		Other Countries	80 115	Brazil and Argentine Australia and New Zealand	104 35 122 97
Norway	29 45 106 31		2073 1280	Canada Other Countries	54 42 320 222
Netherlands	169 156	COTTON YARN.	141 128		826 673
France Spain	81 32 133 63	Norway, Sweden, Denmark Germany and Poland	1274 866	APPAREL	
Italy Dutch E. Indies China (with Hong Kong)	88 26 87 37	Netherlands Belgium	273 211 143 76	British S. Africa Australia	484 384 14 3
China (with Hong Kong) Japan	163 87 112 109	France	127 64 192 154	New Zealand	223 113 113 70
Brazil	90 62	Bulgaria	30 31	Other Countries	763 606
Argentine British India	104 61 40 29	Roumania U.S.A	118 99 42 52 56 70		1597 1175
Straits Setts. and Malay Australia	44 17 238 155	Brazil Argentine	56 70 36 36	To S. Ireland	340 344
Canada Other Countries	129 172 723 501	British India	176 161 93 75	BOOTS AND SHOES. British S. Africa	144 93
		Canada	52 43	New Zealand	152 65
	2336 1583	Other Countries	452 464	Other Countries	366 239
COPPER MANUFACTURES			3205 2530	To S. Ireland	662 397 390 375
Egypt	20 45 94 64	COTTON PIECE GOODS.	455 400		
Australia	27 6	Norway, Sweden, Denmark Germany Netherlands	455 408 264 144	LEATHER. Germany	78 32
New Zealand Other Countries	99 14 231 144	Switzerland	199 146 243 195	France	80 65 193 159
	471 273	Turkey	130 99 802 562	Other Countries	388 241
TIN (Blocks, etc.)	-11- 410	Dutch E. Indies	399 227		739 497
Sweden	47 23	China (with Hong Kong) U.S.A Peru & Chile	237 300 219 127	To S. Ireland	100 79
Germany France	23 5 99 43	Brazil	291 100 93 21	PAPER. Foreign Countries	134 107
Ŭ.S.A	161 149 69 9	Argentine, Urnamay	1185 878	British India	55 49
Other Countries	167 97	Colombia	155 162 548 347	Australia and New Zealand Other British Possessions	472 306 131 113
g a grand a 18 a 1	The second second	British S W & E Africa	1366 942		<u> </u>
	566 326	Foreign W. & E. Africa	406 146		792 575

THE PHYSICAL VOLUME OF PRODUCTION.

HE Index Number of Production for the third quarter of 1931 is 81.5, g points lower than the corresponding quarter of a year ago, and one point higher than the figure for last quarter. Normally the third quarters' figure shows again shows a decrease, the figures in a distinct seasonal decline from the Iron and Steel are approaching the low second quarter, this year this decline is levels reached during the extensive not shown; the excessive decline last stoppage in the Coal Industry in 1926.

quarter from the first quarter in some of the individual figures (Food and Paper) is compensated in the third quarter by considerable rises. On the other hand production of Coal and Iron and Steel

QUARTERLY INDEX OF PRODUCTION.



QUARTERLY INDEX NUMBERS OF PRODUCTION.

Average 1924=100.

	Final Index.		1183	98.8 99.9 97.9	102.6 98.2 90.1	102:2 72:0 57:3 69:7	110°8 108°1 105°9 107°4	105.7 103.7 95.4 105.2	108°3 111°0 108°8 114°8	109.6 100.9 90.7	86.1 80.6 81.5	Totalesterine
VII.	Paper.	000 tons 244·3	86	53.7 104.9 127.2 114.2	77.3 99.4 108.6 111.2	91.7 114.4 114.8 103.5	109.0 112.1 126.4 124.2	82.4 118.0 99.8 122.9	111.2 136.6 139.7 147.0	116·3 127·0 125·4 122·5	101.6 94.0 121.1	
	Group Index (incl. heavy Chemi-		62	95.4 103.0 101.0	107.6 94.4 82.4 87.4	90.0 79.5 72.6 84.4	107.0 92.6 92.8 97.9	104.8 103.8 93.3 102.7	100·1 102·1 103·4 105·4	94.5 88:8 97.7 84.2	83.9 82.5 85.0	
VI.	Oil Seed crush- ing.	000 tons 435·3	1	109-9 97-8 87-8 104-5	118·2 91·1 93·0 84·6	92.8 84.6 80.4 59.7	82.8 77.5 66.8 70.6	98.8 99.8 79.5	109.2 86.0 69.7 87.7	79.7 69.2 59.1 75.7	82.0 86.4 67.4	
	Group Index.		209	92.5 97.8 104.9 104.8	94.8 97.8 96.0 99.4	95.3 98.6 97.8 96.8	105.7 101.4 104.2 101.6	104·4 99·3 103·5	101.9 110.6 111.3 107.9	99.8 110.3 109.3 117.1	115·3 103·8 118·1	en e
	Tobacco	000 lbs. 36,477	77	95·6 99·7 101·9 102·7	96·3 105·2 110·2 108·5	102.5 112.7 104.8 112.8	107°2 110°0 118°7 121°9	116·9 124·3 127·7 133·6	123·3 139·1 141·1 142·1	138·3 136·7 138·0 145·4	142·9 122·5 132·8	STREET, STREET
Δ	Cocoa.	cwts. 259,231	II	109·6 89·6 88·7 112·1	109-9 113-3 99-2 112-1	119:3 114:4 87:6 113:9	144·3 82·4 102·8 101·3	121.4 103.7 102.5 101.0	115.3 116.7 103.4 108.3	99.9 121.7 96.5 121.6	151.2 95.9 118.6	STATES OF THE PARTY OF THE PART
	Wheat and Flour.	000 cwts. 31,914	90	85.4 99.6 111.6 103.3	89.2 89.3 88.4 91.1	82.2 87.0 97.9 84.0	92.4 103.6 98.0 92.3	93.2 86.4 92.7 91.8	87.0 94.9 100.1 91.4	81.3 91.8 99.8 101.9	89.9 97.5 110.8	
	Group Index.		216	101.0 90.8 83.2 125.3	134.2 124.0 99.5 129.0	130.4 102.1 82.2 107.0	139.0 118.2 108.2 113.5	118:4 112:0 98:1 119:7	120°8 114°7 94°1 124°5	112:9 90:6 68:4 87:7	79·3 84·8 81·5*	SONTHANDAMENT STREET, SONTHANDS
VI	Silk.†		100	74.6 94.3 111.5 119.5	112:2 152:0 81:9 79:3	92:7 96:5 86:3 105:0	108:2 101:8 96:9 147:6	151·1 136·6 140·8 158·0	147·3 142·2 162·8 175·0	159.0 125.0 127.2 140.7	142.0 139.7 140.7*	
	Cotton.	bales 689	83	104.2 90.4 79.7 126.0	136.9 120.6 101.6 135.1	135.0 102.8 81.7 107.2	142.8 120.2 109.6 109.3	114.4 109.0 92.9 115.0	117.6 111.4 85.8 118.6	107·3 86·4 61·3 81·3	71.7 78.1 74:3	recommendation of the second second
	Group Index,		25	96:6 90:4 111:6 101:2	100.0 102.6 111.2 110.3	117·6 103·8 114·4 119·2	125-9 123-5 118-7 119-8	117·5 122·9 106·9 112·1	111.5 120.5 117.7 114.7	111.8 117.2 114.3 119.4	92:4 121:9 101:0	Section of the Control of the Contro
III.	Lead, Tin and Zinc.	tons 87,967	69	96.4 87.3 118:5 97:7	102:3 108:9 117:0 124:9	123·8 111·1 110·4 121·5	131.6 115.8 124.4 114.2	109.9 120.0 94.3 106.5	106·1 120·3 120·4 109·7	119-7 113-7 100-4 123-9	96.0 138.1 115.7	
	Copper.	tons 39,626	99	96.9 93.8 104.1 105.0	97.4 95.7 104.8 94.3	110.9 95.8 118.8 116.7	119-7 132-0 112-4 125-9	125.8 126.1 120.6 118.2	117.4 120.8 114.7 120.1	103·1 121·1 129·4 114·5	88·6 104·2 85·0	
	Group Index.		341	109.0 106.2 94.6 90.6	95·1 89·2 79·4 81·1	92:8 49:4 25:1 32:7	103.4 116.0 111.3 112.0	110·1 107·7 94·9 100·8	109:1 114:8 116:4 115:9	118·1 104·1 85·2 72·9	63·2 55·8 49·1	
	Ship- Railway building Vehicles	tons 9,929	g	142·7 112·9 78·3 66·1	167.9 150.0 111.9 98.5	188.6 149.1 94.0 82.6	67.0 155.7 196.3 244.6	199.3 265.1 154.2 126-2	139·9 131·6 152·8 149·9	149.0 180.8 151.2 189.8	104·9 75·7 76·2	
n.	Ship- building	000 tons 1,373	83	100.0 106.7 103.1 90.1	79·5 74·1 67·6 57·4	55.6 55.6 48.6 48.1	87.2 100.6 111.8 114.7	104-9 87-6 79-4 90-5	98:8 105:9 105:4 113:6	117.6 101.4 81.4 66.2	50.6 40.5 30.4	
	Steel.	000 tons 2,050	36	111.2 106.0 90.8 92.8	94.7 89.5 93.3	103·8 36·1 8·8 24·9	122:3 121:1 102:8 97:7	106·5 102·7 99·2 107·4	117.0 121.1 120.0 115.4	118·4 97·0 82·5 64·0	67.7 62.9 57.9	
•	Pig. Iron.	000 tons 1,827	ZI.	105·0 102·8 97·1 95·3	94.4 90.6 75.9 80.5	87.8 36.7 2.4 6.8	91.8 112:3 100:3 94.8	93:3 94:0 85:4 89:1	91.6 105.3 110.5 107.5	105·1 98·4 72·7 62· 9	55.4 54.4 46.0	
ï	Coal- mining.	000 tons 67,308	232	107·3 99·3 95·0 98·4	100:8 87:8 83:6 94:4	102:5 29:8 10:4 41:6	100.0 93.5 94.1	97:1 88:1 91:4 91:4	101.2 93:1 93:3 99:5	104·2 87·8 83·7 91·6	88·3 81·4 76·2	
:dn	stry:	rage terly ction, 24.	ghts.	Qrs. 122 432	H01004	4004	1004	H01004	1004	нама	наю	1
Group:	Industry	Average quarterly production, 1924.	Weights.	Year. 1924	1925	1926	1927	1928	1929	1930	1931	l

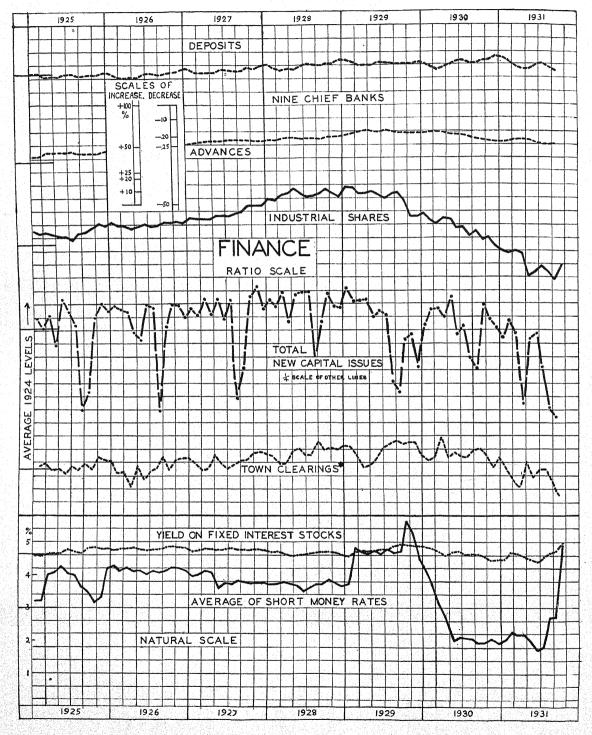
‡ Under Construction.

† Includes artificial silk from 3rd Qr. 1925.

* Partly Estimated.

FOREIGN EXCHANGES.

					ΑV	ERAGE (OF DAIL	Y RATES					
	Paris f. to £	Milan l. to £	Berlin M. to £	Amster- dam fl. to £	Prague kr. to £	Berne f. to £	Stock- holm kr. to £	NewYork \$ to £	Buenos Aires d. to \$	Rio de Janeiro d. per mil.	Bombay d.perrup.	Hong- kong d. per \$	Kobe
Parity	124.21†	92.46§	20.43	12.107	24.02	25.2215	18-159	4.866	47.58	27	18		24.58
1927	100.55	111.0	00.454	For 191	9 to 1926	RATES S	EE EARLI	RR BULLE			1		
JAN FEB MAR APRIL MAY JUNE	123·63 124·01	111.6 112.3 107.7 97.05 89.96 86.94	20·454 20·466 20·468 20·490 20·501 20·494	12·135 12·123 12·130 12·140 12·136 12·124	163·8 163·7 163·9 164·0 163·9 163·9	25·176 25·220 25·235 25·251 25·253 25·244	18·171 18·174 18·144 18·135 18·157 18·128	4·853 4·850 4·854 4·857 4·857 4·856	46.40 46.93 47.51 47.55 47.56 47.69	5·80 5·87 5·83 5·80 5·84	18:03 17:97 17:96 17:88 17:93 17:91	24·17 24·79 24·01 24·50 24·32 24·21	24·15 24·20 24·31 23·90 23·26 23·09
JULY AUG SEPT OCT NOV DEC	124·00 124·01 124·00 124·03 124·00 124·00	89·04 89·32 89·35 89·12 89·47 90·69	20·450 20·431 20·433 20·408 20·422 20·435	12·119 12·129 12·135 12·116 12·075 12·073	163:9 164:0 164:0 164:3 164:4 164:7	25·220 25·212 25·222 25·249 25·272 25·277	18·128 18·116 18·094 18·084 18·098 18·080	4·8552 4·8606 4·8634 4·8700 4·8740 4·8825	47·76 47·85 47·95 47·90 47·83 47·82	5·83 5·87 5·87 5·91 5·89 5·91	17.87 17.87 17.97 17.97 17.99 18.10	24·15 23·68 23·83 23·95 24·43 24·63	23·31 23·37 23·14 22·96 22·65 22·71
1928 JAN FEB MAR APRIL MAY JUNE	124·00 124·02 124·02 124·01 124·01 124·16	92·17 92·07 92·37 92·55 92·65 92·76	20·461 20·431 20·412 20·412 20·399 20·417	12:086 12:109 12:124 12:110 12:098 12:098	164·5 164·5 164·64 164·71 164·72 164·67	25·302 25·336 25·339 25·332 25·327 25·317	18·138 18·161 18·180 18·183 18·193 18·186	4·8758 4·8750 4·8801 4·8821 4·8817 4·8805	47.83 47.88 47.86 47.81 47.80 47.66	5·92 5·92 5·93 5·92 5·92 5·89	18·10 18·00 18·00 18·00 18·01 17·95	24·69 24·44 24·40 24·42 25·05 24·66	23.09 23.08 23.20 23.47 22.94 22.95
JULY SEPT OCT NOV DEC	124·18 124·23 124·18 124·14 124·11 124·10	92·81 92·74 92·74 92·61 92·57 92·66	20·384 20·364 20·356 20·363 20·354 20·360	12:084 12:101 12:097 12:096 12:082 12:078	164·13 163·76 163·65 163·63 163·64 163·72	25·255 25·211 25·200 25·200 25·190 25·178	18·161 18·134 18·130 18·138 18·143 18·132	4·8642 4·8538 4·8508 4·8498 4·8495 4·8525	47·43 47·41 47·34 47·34 47·47 47·36	5·90 5·91 5·91 5·92 5·91 5·89	17:91 17:95 18:06 18:06 18:07 18:062	24·54 24·50 24·36 24·55 24·59 24·51	22:65 22:29 22:69 22:88 22:96 22:75
1929 JAN FEB MAR APRIL MAY JUNE	124·08 124·23 124·24 124·21 124·14 123·99	92·67 92·70 92·68 92·70 92·65 92·67	20·402 20·447 20·455 20·475 20·415 20·335	12:091 12:115 12:117 12:090 12:067 12:074	163.83 163.84 163.85 163.93 163.85 163.73	25·207 25·231 25·229 25·214 25·190 25·198	18:138 18:155 18:170 18:173 18:154 18:113	4·8503 4·8525 4·8529 4·8534 4·8510 4·8485	47:42 47:39 47:28 47:28 47:24 47:17	5·91 5·90 5·86 5·87 5·87 5·87	18.056 18.013 18.008 17.965 17.912 17.854	24·49 24·08 24·08 23·92 23·68 23·66	22.56 22.38 22.05 22.08 22.11 21.77
JULY AUG. SEPT OCT NOV DEC	123·88 123·90 123·87 123·89 123·85 123·92	92·74 92·74 92·69 93·00 93·16 93·24	20·359 20·360 20·361 20·397 20·389 20·386	12·086 12·103 12·093 12·098 12·087 12·096	163·90 163·83 163·76 164·41 164·57 164·47	25·221 25·203 25·164 25·176 25·151 25·109	18:100 18:101 18:101 18:141 18:149 18:102	4·8511 4·8488 4·8479 4·8695 4·8777 4·8817	47·23 47·21 47·20 46·82 46·26 45·86	5.87 5.88 5.87 5.86 5.80 5.56	17·818 17·830 17·869 17·871 17·886 17·936	23.89 23.87 23.73 21.73 21.18 20.52	22:54 23:13 23:42 23:58 24:01 24:10
JAN FEB MAR. APRIL MAY	123.81 123.81	93·05 92·87 92·84 92·78 92·71 92·76	20·387 20·366 20·382 20·375 20·365 20·372	12·102 12·123 12·125 12·097 12·081 12·086	164:58 164:26 164:11 164:16 163:97 163:85	25·163 25·198 25·136 25·094 25·108 25·084	18:136 18:124 18:106 18:092 18:111 18:095	4-8695 4-8621 4-8632 4-8634 4-8599 4-8588	45:12 42:70 42:24 43:61 43:02 41:67	5·52 5·55 5·72 5·81 5·86 5·63	17:931 17:907 17:862 17:860 17:835 17:816	19·47 18·66 18·24 18·40 17·67 15·45	24:23 24:28 24:38 24:38 24:39 24:41
JULY AUG SEPT OCT NOV DEC	123·82 123·77 123·85	92:88 92:98 92:83 92:80 92:78 92:72	20·383 20·387 20·404 20·412 20·379 20·369	12:092 12:089 12:067 12:058 12:068 12:061	164·05 164·17 163·82 163·79 163·79 163·70	25·044 25·047 25·049 25·020 25·049 25·040	18:097 18:112 18:093 18:096 18:101 18:101	4·8652 4·8708 4·8614 4·8589 4·8566 4·8567	40.84 40.67 40.37 38.50 38.65 37.42	5·34 4·87 4·98 ‡ 4·85 4·73	17·821 17·790 17·788 17·818 17·789 17·779	15:41 15:88 15:90 15:81 15:55 13:91	24·39 24·37 24·41 24·51 24·51 24·53
JAN, FEB MAR APRIL MAY JUNE JULY AUG	124·34 124·24 123·82 123·90	92·74 92·81 92·74 92·82 92·91 92·94 92·86 92·87	20·418 20·438 20·406 20·408 20·434 20·496 20·969††	12.066 12.103 12.119 12.106 12.103 12.088 12.057 12.046	163.90 164.08 163.95 164.06 164.11 164.18 163.97 163.96	25·075 25·181 25·246 25·235 25.219 25·081 24.995 24·922	18:136 18:147 18:142 18:148 18:143 18:148 18:146 18,158	4·8550 4·8565 4·8585 4·8600 4·8641 4·8650 4·8566 4·8573	34·48 35·63 38·60 37·77 34·87 34·70 34·61 31·96	4·45 4·24 3·87 3·62 3.33 3·71 3.58 3·16	17.782 17.781 17.849 17.845 17.856 17.777 17.811 17.769	12.06 11.26 12.08 11.99 11.82 11.77 12.34 11.81	24·48 24·41 24·41 24·41 24·41 24·39 24·40 24·42
Veek ending Sept. 5 ,, 12 ,, 19 ,, 26 Oct. 3 ,, 10 ,, 17	123·93 123·92 123·93	92-93 92-91 92-90 79-4 77-2 75-1 74-9	20·526 20·671 20·618 17·354 16·552 16·57	12:058 12:051 12:041 9:937 9:573 9:57 9:54	164.09 164.04 164.08 136 128.5 130	24·952 24·910 24·900 20·4 19·8 19·60 19·75	18·159 18·158 18·159 15·93 16·79 16·66 16·56	4·8611 4·8596 4·8598 3·98 3·89 3·85 3·875	31.70 31.34 29.61 34.69 33.04 30.33 32.17	3.04 3.07 3.01 3.35 3.65 3.2 * 3.46	17.765 17.765 17.765 17.765* 17.781 17.796 17.796	11.76 11.92 11.94 13.55* 14.45 14.93 15.35*	24·46 24·39 24·39 29·36 30·00 30* 30·26



Scale applicable to all lines except the two lowest.

*NORMAL SEASONAL CHANGE REMOVED.

FINANCE.

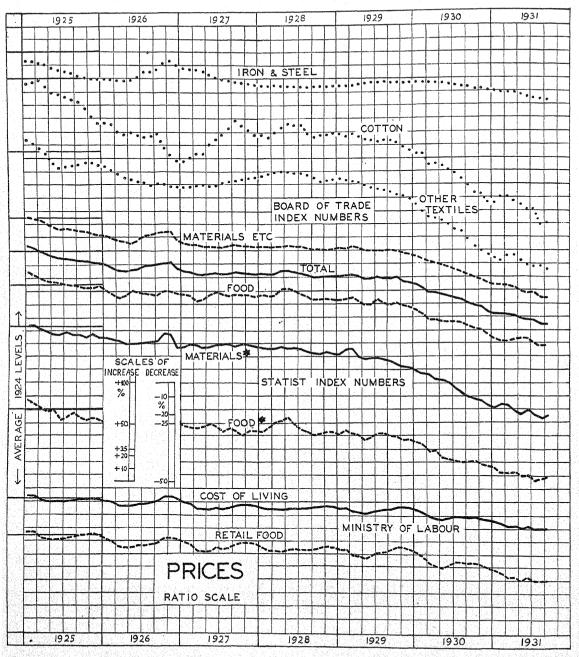
100 109 109 106 107 114 113 114 115 116 119 121 122 133	Intervious of Month o	######################################	7·4 13·8 14·6 3·8 11·9 14·7 8·1						Bang H Private Deposits.	Bank and Currency Purples of Notes. 1	M Deposits.	Discounts.	9 Cless Ban	ks.	Ratio of Cash to Deposits.	Ratio of Advances to Deposits.	TREASURY BILLS	Short Money Index.	Day to day rate.	3 months' rate.
70 9 9 100 1109 1109 1114 1114 1115 1116 1117 1118 1119 1121 1121 1121 1131 1131 1131 1131 1131 1131 1132 1133 1133 1133 1133 1133 1133 1134 1135	% 100 100·3 98·5 98·3 96·3 96·3 95·5 97·0 96·6 96·6	% 100 99·7 101·5 102·2 103·3 103·3 103·1 103·9 104·7	U.K. £Mn 7·4 13·8 14·6 3·8 11·9 14·7 8·1	£Mn, 11.2 5.3 7.8 3.1	£M 2070 2230 2140	ín.	£Mn.	M 11 Towns.		- 1			Адувисев.	Invest- ments.	Ratio of Cash to Deposits.	Ratio of Advances to Deposits,	1 R	Money	to day	3 months' ra
70 9 9 100 1109 1109 1114 1114 1115 1116 1117 1118 1119 1121 1121 1121 1131 1131 1131 1131 1131 1131 1132 1133 1133 1133 1133 1133 1133 1134 1135	% 100 100·3 98·5 98·3 96·3 96·3 95·5 97·0 96·6 96·6	100 99·7 101·5 102·2 103·9 103·3 103·1 103·9 104·7	7·4 13·8 14·6 3·8 11·9 14·7 8·1	£Mn, 11.2 5.3 7.8 3.1	2070 2230 2140	*	!		£Mn.	- 1	£Mn.					- C 1	F 8	0		
109 106 107 114 113 114 115 119 121 124 131	100·3 98·5 96·3 96·3 96·2 97·0 97·0 97·0 96·6	99·7 101·5 102·2 103·9 103·3 103·1 103·9 104·7	13:8 14:6 3:8 11:9 14:7 8:1	5·3 7·8 3·1	2230 2140		226	140	2				SMn.	£Mn.	%	%	£Mn.	Sh.	%	%
106 107 114 114 113 114 116 119 121 121 138	98.5 98.0 96.3 96.8 97.0 95.5 97.0 96.6	101·5 102·2 103·9 103·3 103·1 103·9 104·7	14.6 3.8 11.9 14.7 8.1	7·8 3·1	2140	2130		147	109	390	1632	242	791	324	11.7	48.5	601	100	2.43	3.45
113 114 116 119 121 124 131	97·0 96·2 95·5 97·0 96·6 96·6	103·1 103·9 104·7	8.1	1	2140	2080 2100 2230	235 235 221 234	150* 140* 135 146	114 107 112 110	382 386 385 379	1634 1609 1619 1631	227 199 231 237	827 849 841 841	289 273 257 261	11.8 11.9 11.9	50.6 52.7 52.0 51.5	611 573 615 641	116 138 125 119	3·10 3·96 3·41 3·42	4·03 4·46 4·08 4·01
121 124 131	96.6	102.9	8·5 15·7	11·3 9·8 6·2 10·2	2070 2100 1990 2150	1970 2040 2150 2250	231 219 205 226	141 123 117 128	107 103 108 104	371 381 374 371	1610 1600 1634 1662	209 195 226 225	866 875 874 887	255 244 247 251	11.7 11.9 11.8 11.8	53·8 54·6 53·5 53·4	611 578 624 667	140 137 137 140	4·15 3·92 3·95 4·02	4·54 4·37 4·40 4·63
		103·5 103·5	17.8 16.5 7.2 17.2	9·8 5·8 6·8 20·4	2228 2253 2040 2240	2117 2190 2200 2340	251 238 224 238	135 131 129 140	105 98 100 101	364 377 376 376	1660 1659 1672 1711	220 200 211 233	803 913 919 916	245 237 236 236	11.6 11.7 11.5 11.5	54·5 55·1 54·9 53·5	642 576 609 651	135 127 126 125	3·91 3·68 3·66 3·59	4·23 4·07 4·33 4·32
145	98.6		18·5 20·6	16·0 12·5	2320 2430	22 10 2360	237 242	138 133	105 100	369 374	1706 1703	226 210	923 934	241 232	11·1 11·1	54·2 54·8	594 541	125 121	3·58 3·52	4·22 3·91
140 143 146 143	98.7	101·5 101·8	24·1 5·5 7·6 29·7 17·0 18·0	17·7 1·0 10·7 10·9 11·0 6·7	2190 2230 2300 2350 2350 2320	2320 2540 2390 2430 2410 2470	246 223 211 244 236 245	132 116 117 130 125 140	105 103 99 100 99 67+37	376 374 374 369 367 375	1749 1732 1732 1753 1752 1806	256 254 244 248 248 259	933 932 930 939 942 946	236 237 244 243 241 244	11·0 11·1 11·2 11·0 11·0 11·3	53·3 53·8 52·7 53·6 53·8 52·4	585 609 622 654 703 779	120 124 126 130 125 123	3·38 3·48 3·69 4·06 3·52 3·25	3.95 4.28 4.25 4.33 4.38 4.36
143 - 3 143 - 0 144 + 0	1.0 98.2 3.4 97.1 0 97.9 0.3 97.2	102·9 102·3 102·9	18·0 26·2 24·8 28·8 12·3 14·0	29·4 6·8 9·0 6·0 8·8 11·4	2570 2440 2230 2210 2250 2560	2460 2310 2120 2120 2250 2430	250 236 237 253 241 235	131 138 136 127 118 122	58+36 63+38 61+36 61+36	353 355 359 363	1809 1777 1739 1743 1732 1770	274 260 214 191 195 216	956 968 980 987 977 978	250 246 244 244 244 244	10.9 10.5 10.6 10.8 10.9 10.9	52·9 54·5 56·4 56·6 56·4 55·3	780 774 712 707 702 756	125 162 160 158 159 156	3·54 5·06 4·58 4·44 4·69 4·23	4·31 5·23 5·38 5·27 5·23 5·28
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	2·5 94·2 1·1 93·5 5·2 93·9 11·3 94·1	106.2 107.0 106.5 106.3	13·9 2·2 1·5 7·5 6·3 4·0	8·3 1·4 1·2 4·0 6·6 1·2	2370 2250 2410 2440 2450 2170	2510 2560 2510 2530 2530 2320	248 226 224 248 242 248	114 123 123	65+36 63+36 70+37 55+42	371 362 360 358	1778 1759 1754 1765 1751 1773	234 225 222 227 231 227	985 980 971 971 970 971	242 242 242 241 235 236	10·7 10·7 10·9 10·7 10·6 11·3	55·4 55·7 55·4 55·0 55·4 54·8	757 776 772 787 792 805	160 156 157 189 177 151	4·73 4·13 4·21 5·27 5·38 4·64	5·33 5·47 5·49 6·22 5·66 4·80
$\begin{array}{c cccc} 119 & - & 4 \\ 116 & - & 2 \\ 120 & + & 6 \\ 119 & - & 3 \end{array}$	4.6 96.1 2.6 98.1 6.5 100.3 3.4 98.4	104·2 102·0 99·7 101·7	11·3 8·0 16·9 11·9 17·8 7·7	5.6 18.2 9.4 9.4 20.1 5.5	2340 2400 2770 2340 2360 2430	2240 2280 2630 2280 2360 2300	250 236 234 249 235 228	104	59+36 59+36 66+36 58+36	348 350 361 356	1767 1714 1682 1712 1742 1788	243 218 181 207 246 273	970 973 976 970 957 958	233 229 225 225 231 233	10.9 10.6 10.8 10.9 10.7 10.6	54·9 56·8 58·0 56·7 54·9 53·6	758 678 615 571 585 618	136 125 104 82 68 71	4.04 3.85 3.35 2.23 1.94 2.13	4·11 3·96 3·03 2·49 2·14 2·33
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	6.0 99.7 9.9 101.3 2.8 103.9	100·4 98·7 96·3	13·1 3·5 2·4 12·8 11·5 10·4	3·3 3·1 2·6 17·7 8·4 5·4	2150 2100 2340 2220 2070 2150	2280 2400 2430 2300 2140 2290	233 224 207 230 226 226	95 89 95 100	66+34 65+34 66+36 60+33	367 358 357 3 55	1794 1767 1764 1791 1801 1839	284 279 284 296 310 320	952 936 927 924 920 915	241 250 255 257 265 269	10.7 10.6 10.6 10.5 10.5 11.1	53·1 53·0 52·6 51·6 51·1 49·7	633 648 649 656 672 706	69 69 65 65 70 66	1.88 1.96 1.69 1.65 2.04 1.52	2·37 2·29 2·09 2·11 2·23 2·30
95.5 + 2 $94 - 3$ $80 - 17$	2·7 99·6 3·0 100·2 17·0 103·0	100·6 99·9 97·6	7.8 6.0 7.4 1.4 .9 4.4	4.5 13.6 6.0 .3 10.1 8.4	2210 2060 1960 2270 1980 2196	2110 1950 1860 2210 1980 2080	238 218 213 228 218 205	98 94 93	59+33 61+35 62+3 4	354 353	1836 1782 1726 1698 1700 1744	328 299 238 209 222 264	909 909 921 925 919 908	281 293 295 292 274 272	10.6 10.5 10.5 10.3 10.4 10.5	49.5 51.0 53.3 54.5 54.1 52.1	784 646 587 559 571 623	68 76 75 75 68 60	1.87 2.50 2.23 2.31 1.98 1.56	2·17 2·52 2·62 2·61 2·26 2·12
82 — 6 78 — 3	6·8 99·2 3·3 97·9	101.3	2·3 1·6 1·3	2·9 	1980 1690 1680	2090 1930 1740	218 202 192	79	66+34 58+35 58+50 70+51	352	1750 1708 1675	279 261 234	898 895 897	283 286 288	10·3 10·4 10·2	51·3 52·4 53·€	633 655 656	62 125 126 168	1.75 3.58 3.69	2·14 4·31 4·28
14 14 14 14 14 14 14 14 14 15 12 12 12 11 11 11 10 10 10 9 9 9 9 9 9 9 9 8 8 8 8 8 8 8 8 8 8 7 7	639 983341 624511 496092 260359 645402 628	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	6 98.2 101-8 29.7 10-9 2350 244 136 110 369 1755 248 839 243 11-0 55-8 703 98.7 101-4 17:0 11-0 2330 24.70 245 140 67+37 375 1806 259 946 244 11:0 55-8 703 9 100-1 99.9 18:0 6-7 2320 24.70 245 140 67+37 375 1806 259 946 244 11:0 55-8 703 778 9 100-1 99.9 18:0 6-7 2320 24.70 245 140 67+37 375 1806 259 946 244 11:0 55-8 703 788 8 10 98.2 101-9 26-2 6-8 2440 2510 256 138 55+36 553 1777 260 968 246 10-5 54-5 774 8 10 98.2 101-9 26-2 6-8 2440 2510 251 136 65-3 555 1779 260 968 246 10-5 54-5 774 13 0 97.9 102-3 28-8 6-0 2210 212-0 257 136 65-3 555 1739 214 10-6 56-4 712 14 + 0.3 97.2 102-9 12-3 8-8 2250 2526 241 118 61-36 359 1743 191 987 244 10-8 56-6 702 14 - 2.7 97.3 103-5 14-0 11-4 2550 2450 245 118 61-36 359 1743 191 987 244 10-9 56-7 702 14 - 2.7 97.3 103-5 14-0 11-4 2550 2450 245 118 61-36 359 1743 191 987 244 10-9 56-7 702 14 + 2.5 96-0 104.0 13-9 8-3 2370 25.10 248 129 63-3-6 257 1770 216 978 244 10-9 56-7 705 15 - 5-2 93-9 106.5 7.5 4-0 2440 2530 242 112 66-3-6 371 1759 256 980 242 10-7 55-7 776 15 - 5-2 93-9 106.5 7.5 4-0 2440 2530 242 112 66-3-6 371 1759 256 980 242 10-7 55-7 776 15 - 5-2 93-9 106.5 7.5 4-0 2440 2530 242 112 66-3-6 371 1759 256 980 242 10-7 55-7 776 1 - 11-3 94-1 106.3 6-3 6-6 2450 2530 242 112 66-3-6 371 1759 256 980 242 10-7 55-7 776 1 - 11-3 94-1 106.3 6-3 6-6 2450 2530 242 123 55-44 2568 1765 227 971 241 10-7 95-0 772 1 - 11-3 94-1 106.3 6-3 6-6 2450 2530 242 123 70-37 860 1765 227 971 241 10-7 95-0 776 1 - 11-3 94-1 106.3 6-3 6-6 2450 2530 242 125 55-44 2568 1765 227 971 241 10-7 95-0 776 2 - 6 98-1 104-2 8-0 18-2 2400 2520 250 126 55-44 2568 1773 227 971 256 11-3 54-8 805 2 - 7-0 977 10-4 13-1 3-3 3 2150 2400 250 258 10-5 53-3 546 1772 279 970 235 10-9 56-7 571 2 - 7-0 977 10-4 17-7 5-5 2450 2300 230 98 66-34 358 1742 246 957 231 10-7 55-1 55-1 3 - 9-9 10-1 3-98-7 12-8 17-7 220 2500 250 250 10-6 6-3 56 6-3 6-3 6-3 6-3 6-3 6-3 6-3 6-3 6-3 6-	6 98-2 101-8 29-7 10-9 2550 2450 2441 150 100 569 1755 248 935 243 11-0 53-6 55-6 55-6 130 3 98-7 101-4 17-0 11-0 2330 2440 236 125 99 567 1752 248 932 241 11-0 53-6 55-6 55-6 130 99 99 18-0 6-7 2320 2470 245 140 67-37 375 1806 259 946 244 11-0 53-6 703 125 120 10-1 100-1 99-9 18-0 6-7 2320 2470 245 140 67-47 375 1806 259 946 244 11-0 53-6 703 125 12-1 100-1 100-1 99-9 18-0 6-7 2320 2470 245 140 67-47 375 1806 259 946 244 11-0 53-6 120 125 12-1 100	6 98-2 101-8 29-7 10-9 255. 2430 244 130 100 569 1755 248 942 241 11-0 53-8 654 153 4-66 9 100-1 99-9 18-0 6-7 2320 2470 245 140 67-37 375 1806 259 946 244 11-0 53-8 703 125 3-52 9 100-1 99-9 18-0 6-7 2320 2470 245 140 67-37 375 1806 259 946 244 11-0 53-8 703 125 3-52 9 100-1 98-9 18-0 6-7 2320 2470 245 140 67-37 375 1806 259 946 244 11-0 53-8 703 125 3-52 12-0 10-1 98-9 18-0 26-2 6-8 2440 250 250 131 68-37 361 1800 274 956 250 10-9 52-9 780 125 3-54 70 12-0 12-0 12-0 12-0 12-0 12-0 12-0 12-									

STOCKS & SHARES-NEW CAPITAL ISSUES-BANK CLEARINGS-

BANK OF ENGLAND-PRINCIPAL BANKS-TREASURY BILLS-SHORT MONEY INDEX-

New Index Nos. of Prices and Yield as percentage of 1921 level; on 15th of month. See Spec. Mem. No. 33. Sensitive index.—Geometric Mean of monthly percentage changes. Issues during month in Gt. Britain (a). for U. K. (b), for Abroad, excluding Government loans, etc.—See MONTHLY REVIEW OF THE MIDLAND BANK, LTD.
Total of Town Glearings (i.e., excluding Metropolitan) of London Bankers' Clearing House for 3 weeks covering 2 Stock Exchange settlement days, Consols settlement days and 4th of following month. Country Clearings of London Bankers' Clearing House and Provincial Clearings for 11 towns—proportionate totals for 24 working days. Deposits, other than public. 11th-17th of month. Issues amalgamated. November 22nd, 1928. "Gurrent, Deposit and other accounts." etc. Averages for the month of 9 clearing banks (i.e.—excluding the National Bank, Ltd.).—MONTHLY REVIEW OF THE MIDLAND BANK, LTD.
Total outstanding in middle of month (11th-17th).
Average of Bank Rate, Bankers' Deposit Rate, 3 Months' Bill Rate and day-to-day rate for week ending 15th of month, expressed as percentage of 1924 average.

Day-to-Day Rate and 3 Months' Rate. Averages for week ending 15th of month.



Scale applicable to all lines.

¥ NORMAL SEASONAL CHANGE REMOVED.

PRICES AND WAGES.

U.S.A. PRICES.

BUREAU OF LABOR

Retail Index (Food)

% 100

104:5

104

110

111

110 107

111

108

107

105 107

104 5

105

105

106

108

107

108

107

106

106

105

104

105

106

109

110

110 110

109.5

106'5

105

103

104

103

101

99

99

99

97

94

91

87

85

83

86.2

100

108

100

106.2

104

106

106

104

102

101 100

97.5

95.5

97

98

100

100 101

102

100

99

99

99

98.2

99.5

98.2

97.5

98.5

99.5

99.5

96

95.2

93.9

92.6

92.5

90'8

88.5

85.6

85.6

85.8

84.2

82'0

79.9

78.5

77.0

75.9

74.7

72.7

100

Cost off Living All items

%

100

102*

1041

102*

1031

101*

100.21

99.5*

100

99.2

100

97

	100	and the second s	arrana remainere de provincios de elicidad do deser	WHOLESA	LE.				RETA	IL.	WAGES.
	Bar	Board o	f Trade Ind	1	Statis	t (Sauer)	eck) Index 1	Nos.	M. of L	abour.	New Index
	Silver (Cash). d. per oz.	General.	Food.	Materials. etc.	Foo	ed,	Raw Materials.	Total.	Cost of Living.	Food.	of Average Weekly Wages
1924	34.0	100	100	100	100	*	100	100	100	100	% 100*
Average.											
1925 Lst Qr. Av 2nd ,, ,, 3rd ,, ,,	32·2 31·4 32·4 32·3	101.6 96.0 93.9 92.0	105.6 100.6 98.3 97.2	99·4 93·6 91·6 89·2	105 97 96 93	104 97 96 94	101 96 96 95	103 97 97 95	101 99 100 101	102 98 100 101	100·5 101 100·5 100·5
1926 st Qr. Av nd ,, ,, rd ,, ,, th ,, ,,	31·0 30·2 29·1 25·2	88·6 87·2 90·2 90·4	92.8 93.1 92.5 93.9	86·3 84·1 89·0 88·5	91 92 93 90	90 91 93 92	92 89 90 94	92 90 91 92	98 96 98 101	96 94 95 99	100·5 100·5 100 100·5
1927 st Qr. Av nd ,, ,, rd ,, ,,	25·3 26·1 25·5 26·4	85. 6 84.8 85.1 84.8	90.8 91.6 91.8 91.3	82·9 81·2 81·6 81·5	89 91 87 85	89 90 87 86	88 87 88 89	89 89 88 87	97 94 94 97	94 91 93 96	101 101 101 100·5
1928 st Qr. Av	26.3	84·6 86·1	91·5 95·3	81·1 81·4	89 94	89	86	88 89	94 94	92 91	100 100
nd Qr. Av ULY LUG DEPT OCT	27·2 27·3 26·5 26·8 26·7	84·9 83·8 82·8 83·1 83·0	91·9 90·7 88·7 89·2 89·3	81·3 80·3 79·8 79·9 79·7	88 85 84 84 85	93 87 86 84 85 86	87 85 84 84 84 85	87 85 84 84 85	94 94 95 95 96	92 92 92 93 94	100 99·5 99·5 99·5 99·5
)EC 1929	26.3	83.1	89.1	80.0	85	86	84	85	95	93	99.5
AN PEB IAR IPR IAY UNE	26·4 25·8 26·0 25·9 25·3 24·3	83·2 83·3 84·4 83·4 81·7 81·6	88·7 89·4 90·3 88·5 86·3 86·2	80·3 80·0 81·2 80·7 79·3 79·1	85 87 86 86 82:5 83:5	85 87 85 85 81.5 82.5	84 86 87 82 80 5 79 5	84 86 87 84 81	94 95 92·5 92 91·5 92	91.5 92 88 87.5 86 87.5	99·5 99·5 99·5 99·5 99·5
ULY UG EPT COV DEC	24·2 24·2 23·8 23·0 22·6 22·6	82·7 81·8 81·7 81·9 80·6 79·7	89·4 86·8 85·8 87·2 85·6 84·6	79·2 79·1 79·5 79·1 78·0 77·1	86 84·5 83 82·5 80 81	85 85 84 8 3 ·5 81·5	80·5 80 79·5 78 76 76	83 82 81 80 78 78.5	93 93·5 94·5 95·5 95·5	90 90.5 91.5 93.5 93.5 93.5	99·5 99·5 99 99 99
1930 ANEBIAR	21·1 20·2 19·2 19·5	78·8 76·9 74·9 74·4	83·4 81·0 77·7 77·6	76·3 74·7 73·4 72·6	80·5 79 76 77	80·5 79 75·5 76	74 73 72 70	77 75 74 73	94 92 90 89 88	90.5 88 84 82 81	99 98·5 98·5 98·5 98·25
IAY UNE ULY UG.	19·2 16·3 16·0 16·3	73·3 72·6 71·7 70·9	76·5 76·6 76·4 75·9	71.5 70.4 69.2 68.2	73 72·5 72 69·5	72 71:5 71 70	69 66*5 65 64	71 69 68 66	88·5 89·5 89·5	83 84·5 84·5	98·25 98·25 98·25
EPT. OCT. IOV. DEC.	16·8 16·7	69·5 68·0 67·4 65·5	74·4 72·9 72·5 69·8	67·0 65·4 64·7 63·3	70 70 68 67·5	70·5 7.1 69 68	62·5 61·5 61 59	65 65 64 62:5	89 89·5 88·5 87·5	84 84·5 83 81	98·25 98·25 98·25 98·25
1931 AN EB. IAR PR IAY UNE	12·3 13·8 13·0 13·1	64·3 63·9 63·7 63·6 62·8 62·1	68·1 67·2 66·8 67·7 68·1 68·1	62:4 62:1 62:1 61:5 60:1 59:1	67·5 65·5 66 66·5 65	67:5 65 65:6 65:5 64 64	58 59 58·5 57 55 56	61.5 61.5 61.5 61 59 59.5	87 86 84 84 83 84	80 79 76 76 75 76	98·25 97·75 97·75 97 97 97
ULY UG. EPT.	13.2 12.6 13.0	61·5 59·9 59·7	65·8 64·8 64·9	59·2 57·3 57·0	63 62 63	62 62:5 63:5	54 53 55	57·5 57 58	83 83 83	75 75 75	97 963 963 964

71.4 88 81 71.4 81.5 71.6 82 * June | Dec

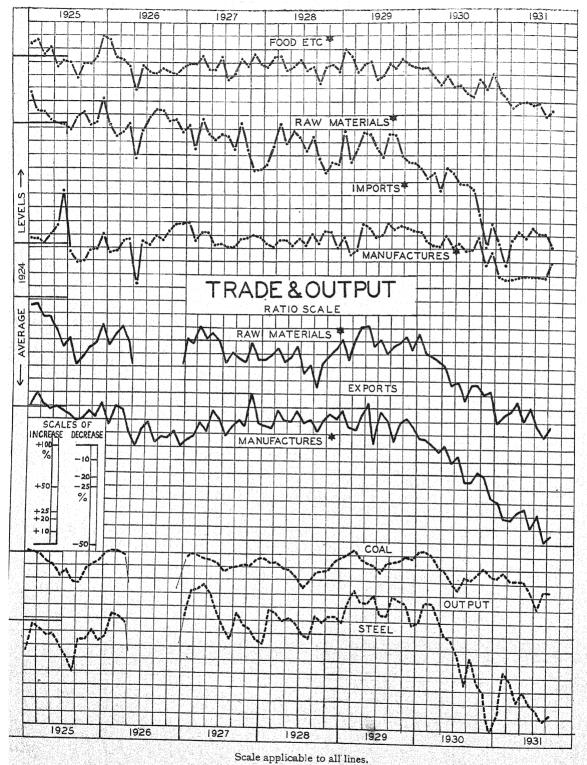
PRICE OF SILVER-

Average (cash) price of bar silver for week ending 15th of month.—ECONOMIST. BOARD OF TRADE INDEX—Geometric Mean of Wholesale Prices (averages for month) of 150 commodities as percentage of 1924 average
—BOARD OF TRADE JOURNAL.

STATIST (SAUERBECK) INDICES-COST-OF-LIVING INDEX Average wholesale prices of 19 foodstuffs and 26 raw materials on last day of month, as percentage of average for 1924.—STATIST. Ministry of Labour's index showing movement since 1921 in cost of maintaining unchanged the standard of living prevalent in working-class households before the war. For 1st of month, but placed against previous month—e.g., reading for March 1st is shown against February—to facilitate comparison with "Statist" index.

RETAIL FOOD PRICES-WAGES INDEX-

As above, for food only. For description see Special Mem. No. 28.



* NORMAL SEASONAL CHANGE REMOVED.

TRADE AND OUTPUT.

		TOTA	LIM	PORTS	(Val	ues).			EXPORTS OF U.				K. GOODS	(Values).		OUTPUT.			SHIP- B'LD'G Tonnage Com- menced Tons 000	
	Food, Drink as Tobacco				Manu- factures.		Total (including Miscellaneous)		TOTAL. NET IMPORTS. £Mn.	Food, Drink and Tobacco. £Mn.		Raw Materials. £Mn.		Manu- factures.	Total (including Miscellaneous)		Coal. Tons Mn.	Pig Iron. Tons		Steel. Tons
1924 Average.		*	33.3	*	25.0	-	106.4	*	94.8	4.7	*	8.9	*	51.6 *	66.8	*	21.2	520	641	263
1925 .stQr.Av. and ,, ,, ird ,, ,,	47.9 <i>5</i> 45.4 <i>4</i> 44.7 <i>4</i>	1·2 7·0	42·0 31·3 27·9	38·1 33·7 34·3 35·6	26:8 31:3 23:1 25:4	26:4 31:4 23:3 25:7	117·3 108·6 96·1 119·2	116·2 112·6 101·9 110·3	104.0 95.4 84.3 105.4	4·7 4·1 4·5 5·0	5.7 4.7 4.1 4.2	8·1 6·9 6·1 7·0	8:2 7:1 6:1 6:7	55·3 54·4 49·0 51·6 50·0 48·4 51·2 51·0	69.6 61.3 62.2 64.6	69·9 64·7 60·1 63·4	21·3 19·2 17·8 19·7	537 509 422 448	608 589 524 597	202 190 261 161
1926 stQr.Av and ,, ,, ard ,, ,, th ,, ,,	40·8 4 43·8 4	9·1 2·3 3·0 2·9	28·4 30·5	\$1.8 \$0.6 \$6.1 33.5	25·6 24·2 26·3 28·9	25·1 24·2 26·5 29·2	107·1 93·7 101·0 112·5	106:4 97:4 106:0 106:1	94·8 83·9 92·4 101·6	4·2 3·6 4·6 4·6	5·1 4·2 3·9 4·0	6.7 3.8 2.0 3.2	6·9 4·0 2·0 3·2	50:9 50:2 40:9 43:1 45:0 48:7 42:5 42:3	63·2 49·5 52·6 52·0	63:5 52:5 50:8 51:1	21·5 —† —	499 207 13 38	665 245 56 161	193 163 63 153
1927 stQr.Av. 2nd ,, ,, 5rd ,, ,, th ,, ,,	43 4 <i>4</i> 43 9 <i>4</i>	6·0 4·9 3·1 6·1	34·7 28·6 25·1 28·9	32:0 30:8 30:9 25:2	28·7 26·5 25·5 26·9	28·1 26·4 25·7 27·2	107·0 98·8 95·0 105·9	106:5 102:5 100:1 99:3	96.5 87.2 86.1 95.8	4·1 3·8 4·5 5·0	4·9 4·5 4·0 4·3	6·7 6·7 5·9 6·2	6·8 6·8 5·9 6·0	44.8 44.1 45.6 48.0 47.1 45.7 50.6 50.4	56·8 57·3 58·7 63·5	57·1 60·4 56·8 62·4	21·1 20·3 19·3 20·0	524 631 558 527	782 799 648 629	58 43 37 37
1928 .stQr.Av. 2nd ,, ,,		6·5 14·7	32·1 28·3	29·1 30·5	26·7 26·2	2 5·9 26·2	103·2 98·5	102·0 102·2	92·2 87·1	4·3 3·9	5·2 4.5	6·0 5·9	6·0 6·0	49·1 47·7 46·5 <i>55</i> ·7	60·6 57·8	60·2 61·1	20·3 18·9	524 529	672 676	34 27
JULY AUG SEPT OCT NOV DEC	44.6 4 40.3 3 48.2 4 48.3 4	13·1 14·1 19·2 14·0 14·9 12·8	24·0 24·3 20·6 24·2 29·9 30·9	27.7 30.5 26.2 23.8 25.6 25.2	27·4 25·6 29·1 27·3	25.5 27.8 25.8 28.4 28.2 25.1	95:5 97:7 87:7 102:7 106:8 101:5	98.5 103.8 92.4 97.4 99.9 94.0	87·0 88·9 80·8 93·8 96·0 92·4	4·4 4·8 4·8 5·6 4·6	4·1 4·4 4·1 4·2 4·8 4·6	5.4 5.6 4.9 6.2 6.1 6.3	5.3 5.6 4.8 5.7 6.0 6.3	49·2 47·3 50·1 48·4 45·2 44·7 50·8 48·1 49·9 50·3 46.8 48.8	62·2 56·6 64·3 63·8	58.6 59.9 55.3 60.0 62.8 62.1	16·9 17·8° 18·8 19·0 19·2 20·5°	486 469 470 491 508 492	611 594 702 665 699 699	} 24 } 43
1929 JAN FEB MAR APR MAY JUNE	40·0 4 42·1 4 42·6 4 44·2 4	50·5 17·0 12·9 14·9 15·9	39·1 27·0 28·5 30·9 29·2 24·5	\$1:9 25:7 28:1 31:5 31:1 28:3	26·8 23·1 27·2 30·2 29·2 26·4	27·1 23·9 24·7 29·7 28·9 27·1	116·5 90·9 98·6 104·1 103·4 91·5	110·5 97·3 96·5 106·5 106·8 96·7	106·7 80·5 88·6 93·8 93·0 81·9	4·2 4·0 3·8 5·0 4·6 3·9	5.0 5.1 4.4 6.0 5.2 4.4	6.6 5.6 6.6 6.8 7.8 6.1	6.7 5.8 6.6 7.3 7.4 6.4	53.8 51.7 44.3 45.8 47.0 45.8 47.1 50.8 53.4 54.7 38.4 41.3	55·7 58·6 60·2 67·4	65.7 58·6 57·4 64·8 68·9 53·5	21.0 21.5 22.2° 20.8 20.3° 19.9	509 520 533 571 591 614	673 775 841 773 773 812	} 36 } 42
ULY AUG SEPT OCT NOV DEC	45.7 4 45.1 4 51.2 4 48.5 4	11.6 15.1 13.9 16.8 15.0 14.0	22·9 24·7 24·2 27·3 30·0 31·2	26·8 25·7	27.4 29.5 28.4 30.2 28.2 27.8	27·5 30·0 28·6 29·5 29·0 28·6	93:6 101:0 98:4 110:3 108:2 106:4	96.6 107.3 104.1 104.7 101.2 98.9	85.6 92.0 91.6 101.1 100.0 98.6	4·7 4·5 4·8 5·4 5·7 4·9	4.4 4.1 4.3 4.4 4.9	6·9 6·0 6·5 7·1 6·9 6·2	6.7 6.4 6.5 6.8 6.2	53.2 51.2 50.8 48.8 42.2 41.5 50.3 47.2 48.6 49.6 44.6 46.2	63·0 55·1 64·6 63·1	63·9 60·7 53·9 60·3 62·1 60·0	18·9 20·3° 20·4 20·6 21·3 20·9*	607 616 620 622 589 581	708 705 811 783 763 661	} 36
1930 JAN FEB MAR MAY JUNE	37·3 4 40·0 4 36·7 5 39·6 4	43.7 43.8 40.8 88.7 41.1	30·1 24·0 24·1 20·7 23·1 20·4	22·9 23·8	28·0 25·8 28·1 25·6 27·7 24·5	28.2 26.6 25.6 25.3 27.4 25.1	101:8 88:2 93:4 83:9 91:0 83:4	97·8 94·4 91·4 85·9 93·7 87·8	93·7 79·6 85·8 76·1 82·0 75·6	4·6 3·7 4·0 3·6 3·8 3·2	5.57 4.7 4.7 4.3 3.6	6·9 5·8 6·0 5·4 5·8 4·7	7:0 6:1 6:0 5:8 5:6 4:9	44.7 42.5 41.2 42.6 42.5 40.5 36.7 39.1 39.8 40.5 33.8 36.2	51:9 53:9 46:9 51:0	57.5 54.6 53.0 50.5 52.3 45.8	22·1 22·1 21·5 19·9° 19·3 18·0°	587 607 601 578 555 526	679 776 773 696 621 600	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
JULY AUG SEPT OCT NOV DEC	36.6 3 44.1 4 40.6 3	36·7 35·7 40·3 37·7	17:5 16:5 18:1 16:5	22:1 22:0 21:1 17:8 14:2 16:8	24·2 24·6 27·7 21·6		85·2 79·9 78·6 90·9 79·4 89·6	87.6 84.3 82.5 86.2 74.9 83.9	78.6 73.6 73.2 83.7 72.6 84.4	4·4 4·0 4·2 4·4 4·8 3·5	4·1 3·6 3·6 3·5 3·5 3·5	5·2 4·4 5·0 5·3 4·7 4·7	5:0 4:4 4:9 4:9 4:6 4:7	39.7 38.1 33.1 31.8 32.0 31.7 35.9 34.0 32.7 33.0 27.6 28.6	42·8 42·7 46·9 44·1	48.6 41.1 41.7 43.7 43.2 39.5	16.9 18.6° 18.2 18.7 19.8 18.7*	439 376 397 375 358 317	547 441 532 451 424 322	} 10
1931 JAN FEB MAR APR MAY JUNE	32·5 5	35.3 33.2 34.2 34.5	13·3 15·1 15·5 14·6	14.6 12.6 14.9 15.5 16.3	19:5 22:3 20:9 21:0	20.7 20.2 20.3 20.6 20.7 20.7	75.6 63.6 70.7 70.0 69.6 68.6	73·3 68·9 69·0 71·7 71·4 72·2	69·6 57·8 65·2 63·4 63·9 62·6	3·7 2·8 3·0 2·9 2·8 2·6	4:46 3:5 3:5 3:9	3·7 3·8 4·1 4·1 4·0 4·0	3·8 4·0 4·1 4·4 3·8 4·2	28·7 27·6 24·0 24·5 25·6 24·6 24·3 25·9 26·0 26·6 21.7 23·2	31·8 34·0 32·5 33·9	37·3 33·7 33·5 35·0 34·7 31·4	18:4 19:2 18:2 18:2 18:2 16:9	305 320 323 302 313 302	361 486 458 397 425 393	 }
JULY AUG SEPT	31.8	31.4	12.5	15·7 15·7 14·3	20.1	20.7 20.5 22.8	70·1 65·3 68·3	71:7 68:5; 70:7	65 ⁻ 2 61 ⁻ 4 64 ⁻ 6	2·7 2·6 2·7	2·5 2·4 2·3	3·8 · 3·4 3·7	3·7 3·4 3·7	26·5 25·4 22·0 21·1 22·2 22·0	29.1	32.9 28.03 29.2		286 249 232		1

* NORMAL SEASONAL CHANGE REMOVED.

IMPORTS & EXPORTS-

OUTPUT—COAL
PIG IRON, STEEL
INGOTS & CASTINGS
SHIPBUILDING—

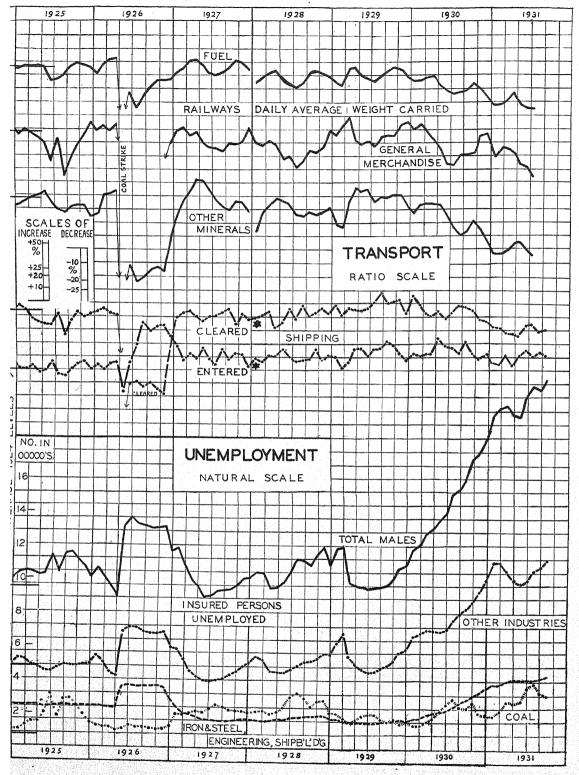
Declared values of imports (c.i.f.) into U.K., and exports (f.o.b.) of U.K. produce and manufacture. Net imports—Total imports less exports of imported goods,—MONTHLY ACCOUNTS OF TRADE & NAVIGATION. Total for 4 weeks ending approximately at end of month—BOARD OF TRADE JOURNAL.

Output for standard four-week month, based upon monthly figures issued by the NATIONAL FEDERATION OF IRON AND STEEL MANUFACTURERS.

Tonnage of ships over 100 tons (excluding warships) commenced during the quarter.—LLOYD'S REGISTER OF SHIPPING.

⁵ 4 Weeks, excluding holiday week.

^{*} Excludes Christmas week, but includes New Year.



* NORMAL SEASONAL CHANGE REMOVED.

TRANSPORT.

UNEMPLOYMENT.

B requested			SHIPPING.		VZZTORE OBRODOWE TAPANIA NAMEDOW TOO.	AILWAYS.		THE TAXABLE MALE	STATE OF THE PARTY	INSUR	ED PI	ERSON	s UN	EMPLO	YED.	Tensus times	
- Catalogue Canada Cana		Tonnage	of Ships	Index of	Fre	eight Traffic d Gauge Rai	lwave				Male	35.		TIGIAL		Fems	les.
The same of the sa	on the spiritual section of the spiritual sect	(with Control of Contr	Cleared	Time Charter Rates. Freight Rates.	General.	eight. Norols	Re- ceipts. All Goods	Total.	Coal.	Iron & Steel	Engineering.	Shipbuilding	Building and Construction.	Cotton and Wool.	§ Other Industries.	Total.	Cotton and Wool.
Manager Color	1924			% %		O tons.	£Mn	000	000	000	000	000	000	000	000	000	000
and the second	Average 1925	461 ★	544 *	100 100	544 1		8.89	941	72	52	116	78	99	35	344	263	62
AND DESCRIPTION OF THE PERSONS ASSESSMENT	1st Qr. Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	417 464 465 463 489 450 479 472	507 545 516 500 523 502 531 532	105 95 92 82 89 78 94 87	514 1 528 1	.733 539 .517 538 .491 517 .713 512	8:88 8:31 8:53 8:89	1034 1058 1107 1063	125 219 250 191	59 62 64 58	95 96 95	83 81 85 90	108 77 83 110	27 31 39 26	371 351 355 345	286 273 290 241	45 60 73 42
MODEL DE COMPONIDE MA	1926 1st Qr. Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	422 <i>469</i> 453 <i>451</i> 644 <i>594</i> 618 <i>606</i>	507 545 364 368 343 330 352 354	91 79 — 78 103 98 138 138	429 445	1778 544 667 376 336 331 1056 365	9·10 5·81 5·64 7·92	1003 1186 1314 1259	119 109 1)8 111	50 108 132 108	97 121 135 134	88 50 96 100	117 94 109 139	31 59 69 49	348 454 511 460	243 335 376 307	49 106 130 86
	1927 1st Qr. Av 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	447 <i>515</i> 511 <i>509</i> 542 <i>500</i> 503 <i>496</i>	498 586 536 5±0 566 544 517 518	112 104 113 95 102 87 102 93	532 1 536 1	1754 542 1605 598 1595 534 1672 524	9:42 9:00 9:07 9:11	1032 913 929 990	201 220 243 217	41 39 41 49	97 75 67 69	73 54 48 46	134 82 92 147	29 24 29 31	356 296 295 303	236 175 194 196	46 39 48 49
000000000000000000000000000000000000000	1928 1st Qr. Av 2nd ,, ,,	449 <i>494</i> 514 <i>512</i>	502 <i>530</i> 535 <i>519</i>	93 84 90 83		1661 506 1478 536	8·95 8·34	1004 992	208 250	44 45	67 67	44 51	152 109	27 30	323 312	201 197	43 54
	JULY AUG SEPT OCT. NOV DEC	534 489 516 492 563 530	549 519 597 575 547 532 570 549 549 558 516 541	90 83 91 87 98 87 103 92 116 98 119 98	505 510 574 540	1412 514 1481 508 1486 494 1636 537 1629 528 1625 483	8·19 8·41 8·50 9·34 8·98 8·19	1122 1114 1069 1148 1189 1088	324 295 250 279 281 212	51 51 48 47 47 47 42	67 72 72 70 74 70	57 57 62 67 66 61	114 116 127 141 159 163	40 44 43 39 37 34	341 348 349 354 367 353	255 261 266 255 264 246	81 83 79 71 66 60
	1929 JAN FEB MAR APRIL MAY JUNE	538 <i>538</i>	541 574 462 535 552 559 551 558 601 554 575 563	113 96 109 95 108 89 108 88 108 86 104 81	448 515 532 525	1832 492 1711 424 1849 519 1613 584 1646 596 1566 562	9·13 8·26 9·27 8·95 8·94 8·39	1189 1197 980 960 956 942	212 170 147 175 198 203	43 42 36 37 37 39	76 72 64 64 65 61	56 52 50 46 46 46	206 252 141 116 104 100	37 38 34 39 37 38	388 393 350 332 325 315	277 257 224 222 221 221	63 60 56 63 69 72
	JULY AUG SEPT OCT NOV DEC	588 539 589 562 583 549 513 521	618 585 648 625 596 580 622 589 586 595 517 542	109 83 116 83 119 84 104 77 96 77 88 70	513 523 579 536	1682 578 1688 560 1660 548 1811 606 1845 573 1756 495	9·05 8·82 8·88 9·69 9·33 8·24	947 951 961 1005 1061 1075	202 173 162 165 153 156	41 40 39 41 47 45	61 66 68 68 70 70	47 49 51 51 49 48	103 108 121 143 172 181	40 41 36 36 40 42	314 331 335 339 356 359	231 247 243 249 265 269	78 78 69 69 69 73
	1930 JAN FEB MAR APRIL MAY JUNE	. 484 <i>517</i> . 498 <i>518</i> . 579 <i>579</i>	581 616 496 574 533 542 525 532 598 551 534 523	83 66 84 64 84 61 86 66 86 58 66 62	468 512 484 501	1892 537 1743 503 1755 540 1563 506 1621 465 1318 485	9·13 8·41 8·92 8·19 8·65 7·27	1173 1209 1267 1301 1357 1396	138 142 155 177 235 254	48 47 55 64 63 63	79 85 91 98 100 107	49 50 55 55 58 62	197 195 177 160 147 147	56 63 67 71 85 91	411 425 456 465 461 469	348 374 427 460 499 515	104 121 135 151 185 202
	JULY AUG SEPT OCT NOV DEC	. 564 517 . 588 561 . 557 524 . 496 504	571 541 589 567 579 563 581 551 511 519 489 513	71 61 71 70 79 68 — 62 — 68 64 71	440 474 515 449	1480 485 1434 413 1529 456 1603 512 1640 439 1692 418	8-20 7-54 8-17 8-76 8-18 8-11	1519 1546 1605 1735 1771 1847	246 282 225	71 80 83 91 98 109	114 125 137 151 158 173	65 70 76 82 86 92	160 166 178 200 232 246	102 105 103 96 96 115	499 532 552 581 610 647	551 573 584 584 598 653	192
	JAN FEB MAR APRIL MAY JUNE	401 481 478 510 459 478 511 511	469 497 423 490 466 473 465 471 504 464 507 497	64 70 65 59 66 54 67 56 70 56 64	427 396	1533 410 1471 367 1571 417 1430 401 1324 419 1380 421	7·99 7·37 8·01 7·49 7·05 7·38	1972 2017 2028 1968 1957 2068	239 292 278 288	99 99 102 101 100 101	178 187 192 194 196 199	108 110	288 274 247 220 207 214	112 104 90 93 92 100		621	202 181 184 185
	JULY AUG SEPT	568 521	536 <i>50</i> 7 502 <i>483</i> 503 <i>489</i>		430	1335 421	7:42	2128 2118 2173	328			114		110	722	69	5 219

‡Excluding any disqualified for benefit by trade dispute.

* NORMAL SEASONAL CHANGE REMOVED. § Excludes Commerce, etc.

TRANSPORT: SHIPPING-ENTERED AND CLEARED

SHIPPING FREIGHTS-RAILWAY TRAFFIC— WEIGHT

RECEIPTS

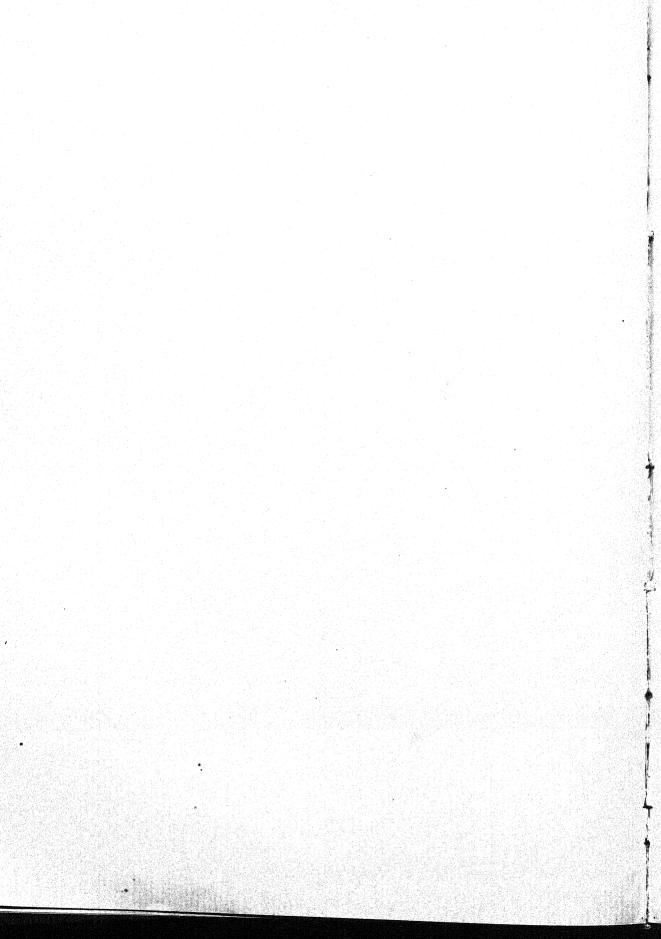
UNEMPLOYMENT-INSURED PERSONS- Tonnage of British and Foreign vessels entering and leaving British ports with cargoes during month.—BOARD OF TRADE MONTHLY ACCOUNTS OF TRADE & NAGIVATION. Chamber of Shipping index numbers as published by "The Statist,"-PREPARED BY DR. ISSERLIS.

Tonnage of goods carried on the Railways of Great Britain during the month, excluding free-hauled.

Monthly Receipts for goods traffic, excluding cost of collection and delivery till January, 1928, then excluding receipts for collection and delivery.—MINISTRY OF TRANSPORT.

Number of books lodged at Labour Exchange on or about 25th of month.

MINISTRY OF LABOUR GAZETTE.



ROYAL ECONOMIC SOCIETY

ISSUED BY ARRANGEMENT WITH THE LONDON AND CAMBRIDGE ECONOMIC SERVICE

MEMORANDUM No. 33

REPORT ON CURRENT ECONOMIC CONDITIONS

January, 1932

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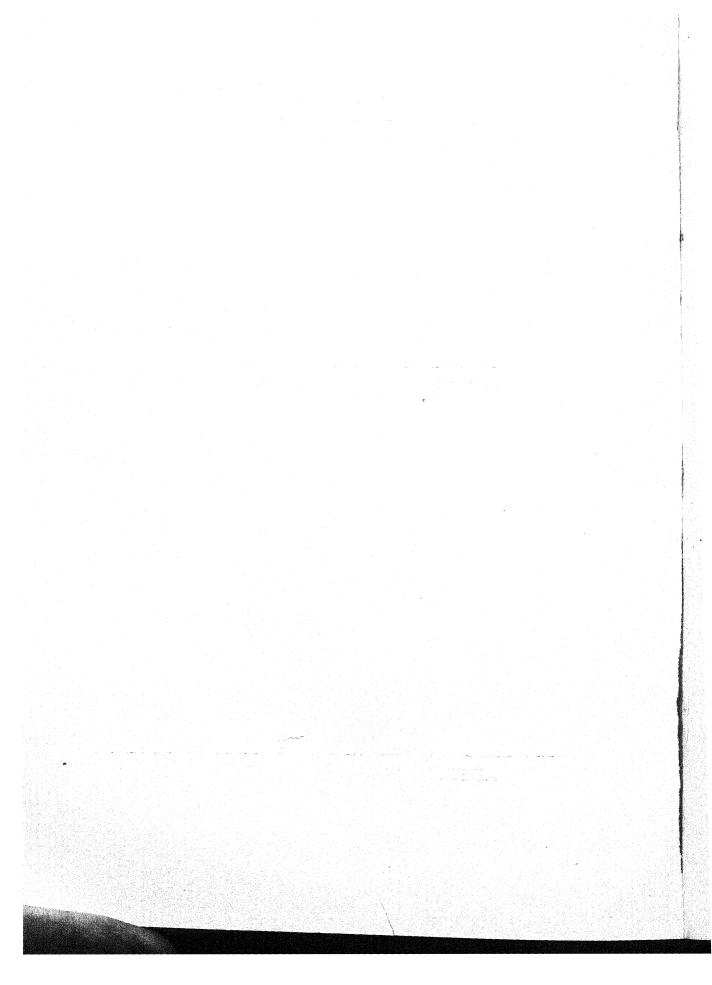
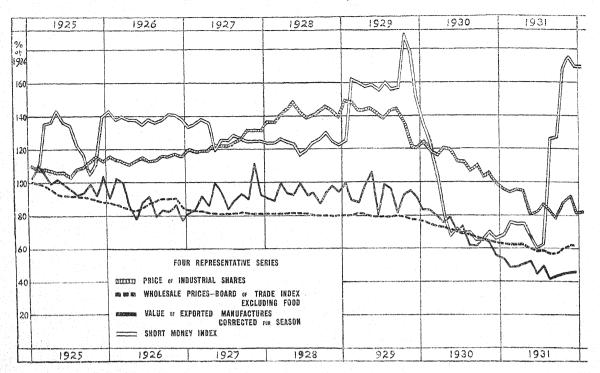


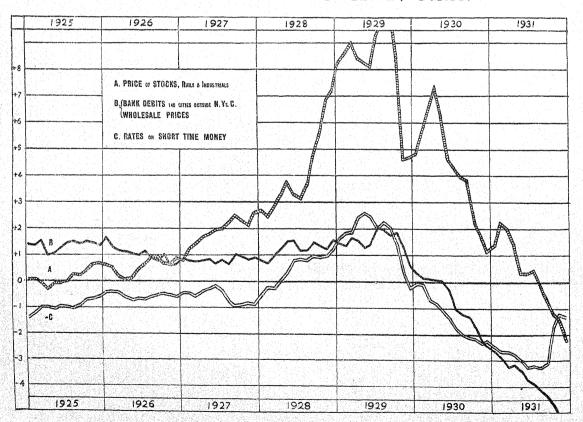
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INDEX CHART, U.K.



HARVARD INDEX CHART, U.S.A.



THE GENERAL BUSINESS POSITION.

UNITED KINGDOM.

January 21st, 1932.

The international deadlock of credit continues and, in view of the economic difficulties of central European countries, there seems little prospect of relief, even if the Lausanne conference is concluded with unexpected success. Wholesale gold prices of commodities have fallen further, and the statistics of stocks of commodities do not suggest that the minimum of prices has yet been reached. Wholesale sterling prices in some cases have shown a tendency to rise, but retail food prices have hardly moved.

Imports of manufactured goods were severely checked in December, but the total for the last three months of the year was at least as great in quantity as in the year before. As to exports, though there has been no marked increase, the fall that took place in the first nine months of 1931 is Employment has been nearly checked. stationary as a whole in recent months, while normally some increase is to be expected in December. The seasonal increase in building unemployment has been more than balanced by improvement in coal, textiles and some other industries.

The advantage to exporting that was to be anticipated from the release of the sterling exchange is not yet definitely marked in the foreign trade statistics, though it is visible in employment figures. No doubt a considerable time must elapse in many cases for obtaining or reorganising a market, for merchanting and for manufacturing. would be premature to estimate how far the movement towards increasing exports may extend, but there are serious difficulties in the way of any considerable improvement, not only from the economic distress of purchasing countries, but also because of the many additional artificial obstacles imposed with the direct object of hindering imports from the United Kingdom.

Attention should again be directed to the slowness of change in money wages. The maladjustment of wages to other prices continues; and, in the existing situation, the effective opposition of the trade unions to any reduction is weakened. In fact reductions on a small scale have taken place during the past two years over a wide range of industries, the latest being that of dock labourers, and if the cost of living does not rise further, reductions are conceivable.

UNITED STATES. HARVARD FORECAST. (By Cable)

January 16th, 1932.

The rise in the adjusted figures for bank debits in December is the first advance since last April and, though not great, is significant because of the great variety of business transactions reflected in debits. In December stock prices continued the downward movement of the preceding months and the money curve fell only slightly below the point to which it rose so sharply in November. Though money rates are

at moderate levels the rise of recent months reflects the serious dislocation of credit conditions. Without such easing in money as would be represented by a further fall in the money curve, cyclical business recovery is improbable. Commodity prices declined further in December and continued to move downward early in January. Aside from bank debits the December data now available for the series which measure business volumes show, after seasonal allowance, either stability or further losses.

UNITED STATES

(Harvard Economic Society).

Dec. 19th, 1931.

O cessation of the renewed decline of business activity in progress since last spring has yet appeared. Commodity prices on the average have not fallen greatly since June, while some of the banking figures are less adverse than they were a month or two ago. But business activity has continued to contract, and security prices have gone with it to new low levels for the present depression.

Except in a few fields like retail trade, business volumes normally decrease during November, but last month the decreases were sharper than usual. The comprehensive indicators—bank debits, freight car loadings, electric power output-all declined after allowance for the normal seasonal change, as did also the special indexes relating to mineral output, foreign trade, department store sales and construction. In construction awards the decline was particularly severe, carrying the indexes both for total and for residential building back almost to the post-war low points. For manufacture in general the outcome for the month is still uncertain, even though slight gains appeared, after seasonal correction, in the steel and automobile indexes. With the heavy shrinkage in volume and a slight decline in commodity prices, our business curve (B) again declined.

The present economic record is one of contraction in most directions. Business volumes, on the evidence of such inclusive indicators as cheque payments and car loadings of freight, were reduced in November to distinctly the lowest point since the war; security prices showed further violent decline, and bank credit outstand-

ing has continued to decrease.

Despite this general contraction, the economic situation is in some respects more wholesome than it was two months ago. The currency drain has ceased, withdrawals of gold have been followed by imports, banking panic has subsided,

and steps are being taken to meet the international financial problems connected with the expiration in February and June of the various debt agreements. Evidencing this betterment, money rates have relaxed, in part seasonally.

But though the threatening elements in the situation are fewer, adequate grounds for forecasting business revival have not yet appeared. The acute stage of monetary crisis may have passed in this country, but it has not yet clearly passed in Europe. As indicated in our Letter of November 14, if it presently becomes clear that the worst of the crisis is over elsewhere in the world as well as here, we may fairly expect the beginning of a cyclical business revival in the near future, but as yet the significant financial and business statistics summarized in our index chart do not forecast such revival.

December 26th, 1931.

The outstanding development this week was the sharp rebound in corporation bond prices; recovery was greatest in the groups which had been weakest—second-grade rails and industrials. Stock prices were irregular, with the average for the week ending Wednesday slightly below the previous week's figure. Somewhat greater firmness has appeared in the money market, as is usual towards the year-end.

The Volume of Manufacture. The indexes for a few manufacturing industries last month were above the figures for October, but output as a whole, after seasonal adjustment for November, showed only slight change. The sharp decline of activity during the present half-year has carried the indexes for general manufacture and for many industries—such as iron and steel, automobiles, cement, cigarettes, newsprint consumption, and total paper output—well under the low levels of 1930 or early 1931; in some cases, unprecedented

figures for post-war years have been reached. For certain industries, however,—cotton and wool textiles, carpets and rugs, leather, tobacco and snuff, gasoline, hog slaughter, and sugar meltings—the indexes, although declining in recent months, are still above the low levels recorded in 1930 or the early months of

this year.

The indexes that advanced last month were those for steel ingots, automobiles, cigarettes, and wheat flour. The increases shown by the first three were moderate. Wheat flour made a substantial rise of ten points which took place from the very low level of September and October, and carried the index back to 88, the August figure; prior to August, the lowest index of recent years was 87, in October, 1930. The other food-group indexes fell rather sharply last month, cattle slaughterings dropping close to the 1930 low point, and storage holdings of beef, which as a rule show a large gain during November, increased only slightly, and on December I were the smallest for that date of any year on record.

The advance of the index for steel ingots in November reflected a small gain in daily average production, the first since March. The increase resulted entirely from a substantial gain in production of Bessemer ingots, which form but a small portion of the total; output of openhearth ingots declined. This month, as is usual in December, decreases in activity for the industry as a whole have again occurred. The decline in automobile production last month was less than our allowance for the customary seasonal Some improvement has been change. reported for December, as production of new car models is under way, but apparently the increase is not very

large.

The decline of the index for boots and shoes during the past three months has contrasted sharply with the advance made in the earlier months of the year. For wool textiles, likewise, the substantial advance of the first eight months this

year has given way to decline.

The index of mineral output, after rising in October, declined again in November, all of the indexes available for the various industries, with the exception of crude petroleum, contributing to the decrease. The advance of the petroleum index reflected a further increase in output, although the rise was not so sharp as that made a month earlier. Anthracite production, which had shown a substantial increase in October, fell off considerably last month. Decreases for bituminous coal, zinc and silver carried these indexes also to the lowest points of the current decline.

Although declines have carried the price indexes below the range within which they fluctuated during the summer and autumn, neither the extent of the downturn nor its particular characteristics have indicated a general weakening of the wholesale price structure. The Annalist index has fallen only 4% below the levels of early June, despite the fact that prices of a number of important commodities were subsequently reduced sharply, not as a result of the general economic situation but of such specific causes as the enormous cotton crop and the cessation of the Farm Board's support of the wheat market. The new low levels recorded in recent weeks for several import commodities, like tin, rubber, burlap, and silk, were in part the result of adjusting the dollar prices of these goods to the lower gold value of the pound, rupee, or the yen —currencies used where these goods are largely produced and sold. The most severe of recent price declines have been confined in the main to such commodities: a considerable resistance to downward pressure has been apparent lately in a number of important goods like wheat, cotton, and silver.

RECENT MOVEMENTS OF SUBSIDIARY SERIES.

UNITED KINGDOM.

FINANCE.—There have been no important movements in the statistics since December. The index number of Industrial Securities is steady, while that of Fixed Interest Securities has risen. The short money index has not moved. Town Clearings increased but were still far lower than last December. Country and Provincial Clearings showed the upward movement usual before Christmas. Statistics of Advances, &c., for the nine Clearing Banks are not yet available for December.

Gold Gold movements is inserted for reference. A small influx was reported for the first three weeks of January, 1932.

GOLD MOVEMENTS TO AND FROM THE BANK OF ENGLAND. £000.

	1927	1928	1929	1930	1931
January February March April May June July August Sept'mber October November December	- 16 - 1180 + 401 + 2211 - 1545 - 1140 + 699 - 586 - 770 + 671 - 1212 + 1252	+ 3945 + 21 - 149 + 2403 + 2320 + 8466 + 2106 + 1244 - 4762 - 5233 - 5088 - 6594	- 197 - 1424 + 1680 + 4660 + 5021 - 7085 - 14347 - 6617 - 5615 + 1346 + 2315 + 12035	+3953 +1071 +4794 +7126 -6628 + 73 -4438 +2458 +2458 +4770 -5020 -8004	- 7549 + 622 + 2766 + 2684 + 4712 + 11415 - 30712 + 1141 - 978 - 14997 Nil Nil
	— 1215	- 1321	- 8228	— 393	30866

PRICES AND WAGES.—There has been no important movement of sterling wholesale prices since October, the variations being only within 2% according to the Board of Trade's weekly index. Comparing the monthly figures, however, the Statist shows a more definite rise during December. It is not possible to reconcile the two statements simply from the consideration that the Statist refers to the last day of the month and the Board of Trade to the average of the month.

DEC., 1931, PRICES AS % OF NOV., 1931.

	Bd of	Trade.	Statist.	, "	Pd of	Trade	Statist.
Cereals		98	102	Textiles		Trade.	104
Animal		98	105	Cotton		99	
Other	• •••	99	104	Wool		99	ارز حث الله
Food		98	104	Other		99	
Mineral Iron	s	100	101	Misc		100	102
Coal		100	_	Materials		100	102
Other		104		Total	•••	100	103

Meanwhile dollar prices in the United States have continued to fall, according to Irving Fisher's index number, since the third week in November, so that prices in the second week in January are 5% lower than two months before and 5½% lower than in mid-September.

It is difficult to get comparable general index numbers, but the following table shows the average movement of prices of those materials for which prices in the United States and in the United Kingdom can be stated. Detail is given in our December Bulletin, p. 382.

	Who	LESALE PRI	CES OF	Sterling-
		NCIPAL MAS		Dollar
Approx. date.	Sept. 12th-		Ratio.Dollar	
19 31	Sterling.	Dollar.	to Sterling.	Ratio to par.
Oct. 3	110.6	97.5	88	80 ^
,, 31	114.0	99.3	-87	.80
Dec. 5	117.6	96.5	82	-69
,, 12	119.2	96.2	:81	68
,, 19	118.2	96.3	-61	.71
1932		05.0		00
Jan. 9	117.0	95.2	.81	69
,, 16	118.2	95.4	.81	.71

There is thus no approximation of the relative movement of prices to the movement of exchange.

Retail food prices fell during December 1% as is seasonally normal. Some rise in the coming months may be expected owing to the dearth of potatoes, but in December this was compensated by cheaper bacon. Bacon and margarine are cheaper than in the month before the war.

Moderate reductions in wages have taken place in several industries during the past two or three years; the most recent is that for dock-labourers, and the resulting general index number of rates is approaching 96, a general reduction of about 4% since 1924.

TRADE AND OUTPUT.—In December, 1931, imports of materials and food were greater than in November, by rather more than the usual seasonal change; the increase tended to compensate relatively small imports in previous months. The annexed table shows the changes in imported manufactures. The last quarter of 1930 and 1931, taken as a whole, show

nearly the same values in most of the categories, with a slight increase in 1931 in some. Excluding oils, &c., which consist largely of petrol, &c., the value of net imported manufactured and semi-manufactured goods was £59.6 Mn. in the last quarter of 1930 and £62.6 Mn. in that of 1931.

RETAINED IMPORTS OF MANUFACTURED AND

SEMI-MANUF	ACTUE	EED GOU		
		t Qr. 1931	Nov. 1931	Dec. 1931
Pottery, &c	2.8	2.8	1.15	.57
Iron and Steel	5.6	6.1	2.56	1.72
Non-Ferrous	5.7	5.4	2.00	1.58
Cutlery, Hardware	1.6	2.1	1.00	.36
Electrical	1.9	2.3	1.13	·41 1·22
Machinery	3.8	4.4	1·64 ·75	72
Wood	1.9	2.2	1.01	.40
Cotton	2.5	2.4	1.66	.21
Wool	3.2	3·3 1·8	.63	.37
Silk	2·3 3·1	3.6	1.44	.70
Textiles	4.1	4.2	1.81	63
Apparel	3.1	4.3	1.79	96
Chemicals		38	1.49	-93
Leather	3·6 4·6	4.9	1.87	1.43
Paper	1.3	.9	.30	145
Vehicles	1.0	9	•34	.21
Rubber	7.5	7.2	2.67	1.64
Miscellaneous	10	12	201	T 04
	59.6	62.6	25.24	14.22
Oils, etc	8.3	7.1	2.06	2.44
Ons, coc				
	67.9	69.7	27.30	16·66
ems 1		•	1	. 1

The last two columns show the great decrease in December. This was not sufficient to compensate the abnormal increase in November, 1931, for the aggregate for the two months shows an increase of nearly £2 Mn. This may be attributable to a rise in sterling prices of manufactures.

NET IMPORTS OF MANUFACTURED AND SEMI-MANUFACTURED GOODS. £Mn. Oct. Nov. Dec. 3 Months.

Exports of British produce were approximately of the same value in December and November, 1931. There is no marked change in any of the principal categories. In 1928, 1929 and 1930 there was a perceptible decrease from November to December, but the ordinary seasonal change is slight, and there has certainly been no boom in exports.

The figures for textiles in particular

EXPORTS OF BRITISH PRODUCE. &Mn. 1931 1930 Manufactured Nov. Dec. Nov. Dec. 5.1 4.3 4.9 Cotton 5.0 2.3 2.6 '1 1.8 2.1 Wool... Silk ... ••• Other Textiles 1.1 1.0 1.1 ••• Apparel

The output of coal and of pig-iron was less in December, 1931, than a year before, but pig-iron showed an improvement over recent months. The output of steel, though greater than a year ago, did not maintain its recent increase. Shipping tonnage commenced shows a marked improvement, though still at a very low figure. This increase has, however, to be discounted by the cessation of work on the new Cunarder.

Building plans approved in December, 1931, were of an estimated cost of f_4 '3 Mn., as compared with f_4 '0 Mn. in November and f_5 '0 Mn. in December, 1930. These figures relate to 142 principal urban areas, but exclude the London area.

Unemployment.—The Ministry of Labour's weekly statement of the numbers on the Live Register has been discontinued, and we have no statistics for a date more recent than December 21st, 1931. It is stated that the insurance statistics are not yet affected by recent changes in administration, since the cards of applicants whose claims have been rejected are still retained in the exchanges.

The aggregate figures for November and December, 1931, are as follows:—

NUMBER OF INSURED PERSONS UNEMPLOYED. 000's.

MALES:	Nov. 23rd	Dec. 21st
Wholly unemployed	1835	1831
Temporarily stopped	332	301
Females: Wholly unemployed	460	431
Temporarily stopped	108	107
Total	2735	2670

There is usually some improvement in employment before Christmas, followed by a considerable relapse in the New Year. In 1931, however, there was a reduction in unemployment in industries not specially affected by Christmas trade, especially in textiles, with some improvement in general engineering.

Recent changes have affected the northern and southern parts of England in different ways. There has been an improvement since October in the north of England and in Wales, while unemployment has increased in the South East and South West and not changed much in the London district. Though the percentage is still lower in the South than

in the North, the difference is less than a year ago. In the North West and in Northern Ireland unemployment is not so

severe as at the end of 1930.

In considering the stress of unemployment, and for future estimates of the numbers likely to be affected by the alterations in regulations and administration, the following figures are important:

GREAT BRITAIN. INSURED ADULTS UNEMPLOYED.

Dece	mner 71	50, LOUL.	000 8	•		
		nemployed	l	Temporarily		
Claim for	and ca	suals.	stor	stopped.		
Benefit.	Men.	Women.		Men.	Women.	
Ordinary	867	128	•••	250	85	
Transitional	716	89		26	9	
Non-claimants	67	53				
Undetermined	31	7		16	5	
						
Total	1681	277		292	99	

Transitional benefit may be applied for by persons who have been unemployed for 74 weeks in the past two years or who have already received 6 months benefit in one year, and who therefore are not eligible for ordinary benefit. The number claiming transitional benefit, viz., 840,000

in all, is some measure of the continuous stress of unemployment on individuals. The recently published analyses (see *Ministry of Labour Gazette*, Jan., 1932, pp. 8-10) of the duration of unemployment refer to July, 1930, and February, 1931, up to which date long spells of unemployment were much less common.

Of the 840,000 claims for transitional benefit stated in the table above, those of 59,000 men and 19,000 women were rejected on the means test; it may be that the 120,000 unemployed insured non-claimants include also persons whose

claims had been rejected.

PERCENTAGES OF INSURED PERSONS UNEMPLOYED.

		1930.				1931.	
District.	Oct.	Nov.	Dec.		Oct.	Nov.	Dec.
London	9.2	10.0	9.8		13.4	13.6	13.1
South East	8.9	10.3	11 1		13.3	14.0	14.4
South West	12.1	13.3	13.2		16.1	16.5	16.4
Midlands	16.2	16.4	18.6		19.8	19.1	19.3
North East	24.2	24.0	24.5		27.0	26.1	25.2
North West	27.4	27.6	29.3		28.2	26.4	25.2
Scotland	21.4	22.7	23.5	•••	27.0	27.0	26.9
Wales	20.3	28.6	31.2		33.3	3 3· 7	31.7
N. Ireland.	27.3	28.1	3 3·4		26.0	25.2	25.5
All	18.7	18.9	19.9	•••	21.9	21.4	20.9

FINANCE, INDUSTRY AND TRADE IN 1931.

UNITED KINGDOM.

FINANCE.—The prices of Industrial Securities fell heavily during the year—the index for December, 1931, being 18% below that for December, 1930. The principal fall was in May and June before the situation was relieved by President Hoover's proposal for a moratorium. There was an increase in (sterling) quotations after the freeing of sterling exchange on September 21st, till mid-November, and then a further fall till the end of the year.

The Bank Rate which stood at 3% from May, 1930, for twelve months, was reduced to 2½% on May 14th, raised to 3½% July 23rd, to 4½% July 30th, and to 6% on September 21st at which level it

remains.

The severity of the financial depression is well shown by the (Town) Bank

Clearings which have diminished every quarter since the beginning of 1930 and most rapidly in the last quarter of 1931 (p. 11), till they are under 60% of their amount two years ago.

Country and Provincial clearings have fallen less and showed some recovery in the last quarter; the latter, which are more closely connected with marketing of goods, were in the last quarter of 1931 77% of two years earlier, showing a reduction (23%) that is little greater than that in sterling commodity prices (20%).

PRICES.—Gold wholesale prices, as measured by the United States Bureau of Labor Index, have fallen with little interruption, but at varying rates, since September, 1929.

Prices in the United Kingdom followed a similar course till the beginning of 1931,

ANNUAL STATISTICS.

	1913	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
FINANCE— New Capital Issues £Mn. For Great Britain ,, Total ,,	44 242	325 384	100 216	100 236	68 204	89 224	132 220	141 253	176 315	219 363	159 254	127 236	43 89
BANK CLEARINGS— London—Town £Mn. Metropolitan , Country , Provincial—5 Towns** , 11 Towns ,	14191 1856 1389 783	32853 2094 4072 2709	30268 1660 3002 1485	32781 1575 2806 1483 1797	32270 1547 2811 1489 1801	35039 1594 2900 1554 1881	35801 1678 2958 1556 1856	35346 1661 2818 1334 1628	36820 1758 2973 1408 1710	39311 1854 3039 1384 1673	39936 1882 3079 1321 1599	38783 1812 2964 1108 1348	31816 1668 2752 989 1200
DISCOUNT RATE— Average minimum charged by Bank of England %	4.77	6-71	6.09	3.69	3.49	4.00	4.55	5.00	4.65	4.5	5.5	3.42	3-95
NATIONAL FINANCE— Public Revenue £Mn. ,, Expenditure,	198 197	1426 1195	1125 1079	914 812	837 789	799 796	812 826	806 842	843 839	836 818	815 830	858 881	865* 865*
PRICES— AVERAGE FOR YEAR— WHOLESALE (Board of Trade)— General	100 100 100 100†	307 328 272 252	197 191 209 220	159 155 165 181	159 161 154 174	166 166 166 175	159 155 166 175	148 144 155 172	141 136 152 167	140 134 152 166	136 132 145 164	119·5 115·5 127 157	104 100 112 147
FRADE & OUTPUT— IMPORTS:—Food, Drink & Tobacco &Mn. including Cotton, RE-EXPORTS Wool, All Raw Materials, Manufactures ,,	295 71 38 270 201	766 257 93 710 453	567 73 43 271 244	472 87 63 298 230	509 93 50 325 257	571 122 74 400 300	570 126 76 425 320	530 84 65 392 315	539 68 64 352 3£2	531 81 64 335 318	535 77 63 340 334	475 45 45 250 307	417 27 35 173 262
Total Imports ,,	769	1933	1086	1003	1096	1277	1321	1241	1218	1196	1221	1044	862
Exports:—Food, Drink and Tobacco of British Produce All Raw Materials, Iron & Steel Mnfctrs., Machinery, Cotton Manufactures Woollen ,, All Manufactures,	34 51 66 55 34 126 36 414	51 100 146 129 63 401 135 1120	37 43 64 64 75 179 55 589	36 73 102 61 52 187 58 569 720	44 100 131 76 45 177 63 580	57 72 106 74 45 199 68 619	55 50 84 68 49 199 59 617	50 19 47 55 46 154 51 539	52 46 76 69 50 149 57 564	54 39 70 67 54 145 57 579	56 49 79 68 54 135 53 574	48 46 64 51 47 88 37 440	36 35 47 30 33 57 25 291
Total Exports ,,	525	1334	703	120	767	801	773	653	709	724	729	571	389
Re-Exports—Food, Drink & Tobacco ,, Raw Materials ,, Manufactures ,,	16 64 30	46 123 54	30 50 27	22 55 27	25 67 27	30 76 34	32 90 31	26 74 25	27 71 25	28 66 26	26 54 29	24 38 24	20 26 17
Total Re-Exports ,,	110	223	107	104	119	140	154	125	123	120	110	87	64
Excess of Imports—Goods & Bullion ,,	146	419	264	166	195	324	384	475	390	358†1	366	391	376
OUTPUT—Coal Mn. Tons. Pig-iron 000 Tons. Steel	287 ⁻⁴ 10260 7664 1866 1932	229·5 8035 9067 2397 2056	163·3 2616 3703 569 1538	249·6 4902 5881 404 1031	276·0 7440 8482 953 646	7307 8201 1050	243·2 6262 7385 814 1079	126·3 2458 3596 582 638	251·2 7293 9097 1764 1250	237·5 6611 8525 1297 1443	257·9 7589 9636 1649 1525	243·9 6192 7325 950 1486	220 3758 5176 200 467
TRANSPORT— SHIPPING (with Cargoes):— Tonnage entered Mn. Tons ,, cleared ,, cleared ,, ,, ,	49·1 67·8	36·5 36·7	37·1 36·4	43·4 59·7	51·1 70·7	55·4 65·3	55·5 62·3	64-2 47-0	60°6 63°5		62:7 68:7	63·7 65·9	60·3 58·3
Tonnage carried— General Merchandise Mn. Tons Fuel	72·0 225·6 71·5 64·4 54·5	72·7 181·4 69·1 127·3 109·4	39.7	56:7 200:1 49:4 115:8 101:8	222·3 63·0 110·1	209·2 66·3 106·7	193·7 63·3 104·0	48·7 85·3	64·8 195·9 66·5 110·7 90·3	187·3 62·2 103·6	65.7 107.0	193·3 58·6 99·7	
UNEMPLOYMENT—all insured ner-	1		1			1		10.50					07
sons %		42.1	17·0° 42·8		Ea Artis				9.7				

^{*} Revised Budget estimates on old accounting basis.

[†] July, 1914.

[§] Provisional. ° Excluding coal-miners disqualified for benefit.

^{**} Birmingham, Bristol, Liverpool, Manchester, Newcastle,

^{††} Excluding special transfer of £19 Mn. of Bullion to France. | Civil population only,

since when they have fallen more slowly, and have even tended to rise (in sterling) since last September.

GENERAL INDEX OF WHOLESALE PRICES.

		U.S.A.]	Bureau	of Labor		K. (Sterl	
		9	of 192	4	% (of July, .	1929
		1929	1930	1931	1929	1930	1931
Jan.		99	95.2	78.5	101	95	78
April	•••	98.5	92.5	74.7	101	90	77
July	•••	100	85.6	71.4	100	87	74
Oct.		98	84.2	69.7	. 99	82	76

In the long run there has been little difference between the movements of prices of food and of materials in United Kingdom. In August, 1931, they stood at 72½ and 73% of their July, 1929, level, and in December, 1931, at 76 and 78% respectively.

Retail food prices have borne nearly their usual relation to wholesale, that is a fall of about two-thirds of that of the latter, disturbed by seasonal changes and with a lag of two or three months.

COST OF LIVING INDEX NO.

End	Food	Clothing	\mathbf{Rent}	Fuel	Misc.	Total
1929	100	100	100	100	100	100
1930	88	95	101	100	97	92
1931	837	88	101	100	97	88

Meanwhile the price of imported goods fell about 12% when the year 1930 is compared with 1929, and about 30% from the year 1929 to the third quarter of 1931. At the same dates the price of British exports had fallen only about 4% and 16%.

The difference between the movements of wholesale and retail prices and between export and import prices are attributable to the fixity of transport and manufacturing costs. Wage rates have on the average fallen only 3 or 4% between July, 1929, and December, 1931. The estimated net weekly decrease in that great part of the national wages bill for which the Ministry of Labour can make an estimate is only £534,000 in the three years 1929-31 together, while the aggregate of weekly wages to which these figures should be related is over £20,000,000.

TRADE.—The total value of imports in 1931 and the values of food, materials and manufactures separately are considerably lower than in previous years. The reduction on 1930 is 12% for food, &c., 30%

for materials, 14% for manufactures, 16% for all, in each case on imports retained. When the fall in prices is allowed for, it is found that the amount of food, &c., had increased 8% in the two years, while that of materials had fallen 6%. It is not practicable to make a close estimate of the quantity of so-called manufactured goods, but there appears to have been an increase of about 2%. The Board of Trade Journal gives the following figures (Dec. 24th, 1931, p. 805 and Jan. 21st, 1932, pp. 82-3) on this subject:

VALUE OF EXPORTS AND NET IMPORTS. £Mn.

	£	4t 1930	Prices		At 1931	Prices.
	Expe	orts.	Impo	orts.	Exp.	Imp.
	1930	1931	1930	1931	1931	1931
Food, &c	48	40	451	488	35	397
Materials	64	52	212	199	47	148
Manufactures	440	326	283	288	291	244
Total (inc. Misc.)	571	435	957	985	389	798

Comparison with earlier years on a somewhat different basis is as follows:—

VALUE OF EXPORTS (BRITISH PRODUCE) AND NET IMPORTS AT 1924 PRICES. MONTHLY AVERAGES. £Mn.

	1924	1929	T900
Exports	 67	72	59
Imports	 95	108	105

Statistics for the whole year 1931 are not yet available.

While the total value of imports retained was about £191 Mn. in each of the first three quarters of 1931, there was a considerable increase in the fourth quarter (see p. 11). For food this increase was only normal to the season, for materials it compensated a reduction in the second quarter, but for manufactures it was very marked in October and November, so that the value of manufactures imported in the fourth quarter of 1931 was slightly greater than a year before in value, and perhaps 14% in quantity.

The reduction in Exports of British produce from 1930 to 1931 was £182 Mn., almost exactly the same value as that in total Imports; but the percentage reduction was much greater, viz., 32% against 17%. The reduction, which is much greater than is accountable by any price changes, occurred in all the principal categories. The greatest fall occurred in the first quarter of the year, while there was actually an increase in the fourth quarter over the third.

SUMMARY OF QUARTERLY STATISTICS.

		19				19	30			19	31	
TOTALS.*	lst Qr.	2nd Qr.	3rd Qr.	4th Qr.	lst Qr.	2nd Qr.	3rd Qr.	4th Qr.	lst Qr.	2nd Qr.	3rd Qr.	4th Qr.
BANK CLEARINGS: Town (ex Metropolitan) Country Provincial (11 Towns)	£ Mn. 10316 764 427	£ Mn. 9514 769 387	£ Mn. 9941 757 38 6	£ Mn. 10165 790 399	£ Mn. 10292 771 385	£ Mn. 9782 742 333	£ Mn. 9529 720 311	£ Mn. 9180 730 319	£ Mn. 9079 717 319	£ Mn. 8745 677 287	£ Mn. 7932 664 285	£ Mn. 6060 694 308
BANKERS' ADVANCES: Average for Quarter NEW CAPITAL ISSUES in Gt.	968	980	979	971	973	962	938	920	913	917	897	892†
Britain: All For United Kingdom IMPORTS RETAINED:	114·2 69·0	81·3 55·1	28·4 17·5	29·7 17·8	69·5 36·3	72·4 37·4	28·0 19·0	66·3 34·7	45·4 21·2	25·5 6·7	8·2 5·2	9·6 9·5
Food, Drink and Tobacco	125	120	126	139	114	108	107	123	93	94	96	113
Materials: Partly Manufactured Cotton Other Total Wholly Manufactured Goods Total Retained Imports	11 25 53 89 60 276	13 15 53 80 66 268	12 9 53 74 65 268	14 24 54 92 65 299	11 16 51 78 64 259	10 9 43 62 65 233	9 5 42 56 60 225	9 12 35 57 58 240	8 7 32 47 50 192	8 6 29 43 50 190	7 4 29 40 52 191	9 9 31 49 60 225
EXPORTS, BRITISH: Materials Manufactures—Cotton Other Total British Exports	19 38 107 181	21 33 107 178	19 34 112 185	20 31 113 186	19 30 98 164	16 22 88 141	15 19 86 136	15 16 80 129	12 15 63 103	12 13 58 96	11 14 57 93	12 14 56 97
EXCESS OF IMPORTS: Goods and Bullion	92	93	55	125	106	94	87	106	82	114	65	115
TONNAGE OF SHIPS (with cargoes): Entered from abroad Cleared for abroad	1316 1553	0000 1589 1728	Tons 1775 1863	1590 1723	1392 1610	0000 1659 1656	Tons 1756 1738	1565 1581	1329 1358	0000 1528 1477	Tons 1667 1541	1505 1458
PRODUCTION: Coal (13 weeks) Pig-iron (3 months) Steel ,, ,, Shipbuilding (commenced)	6813 167 240 362	0000 6265 192 248 000 428	6284 202 241	6701 196 237 499	7014 192 2 37 427	5911 180 199	Tons 5634 133 165 Tons 161	6164 115 128	5948 101 139 33	5479 99 126	Tons 5111 84 119 Tons 39	5801 91 134
INDEX OF PRODUCTION: Bulletin % of 1924 Board of Trade ,,	108·3 110·6	111.0	108·2 110·7	114·8 114·0	109·6 111·0	100·9 103·1	90·7 99·5	92·7 99·0	85·1 95·0	80·6 91·9	81·1 89·6	89 5

^{*} Except Bankers' Advances, for which mean weekly averages are given.

[†] October and November.

INDEX NUMBERS.	Date in		19	29			19	30	1		193	l 💮	
Percentage of 1924 level.	Quarter	lst Qr.	2nd Qr.	3rd Qr.	4th Qr.	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.
PRICES OF COMMODITIES— General—Board of Trade Statist		84·4 87	81.6 81	81·7 81	79·7 78·5	74·9 74	72·6 69	69·5 65	65·5 62·5	63·7 61·5	62·1 59·5	59·7 58	63·5
Materials—Board of Trade Statist		81·2 87	79·1 80·5	79·5 79·5	77·1 76	73·4 72	70·4 66·5	67·0 62·5	63· 3 59	62·1 58·5	59·1 56	57·0 55	61 [.]
Food-Board of Trade Statist		90·3 86	86·2 83·5	85·8 83	84 ⁻ 6 81	77·7 76	76·6 72·5	74·4 70	69·8 67·5	66·8 66	68·1 65	64·9 63	67 65
Retail—Food		88 92·5	87·5 92	91·5 94·5	92 95	84 90	83 88·5	84 89	81 87·5	76 84	76 84	7 5 83	1
Wage Rates	. Fortnight after end	99.5	99.5	99	99	98.5	984	984	984	97	97	961	9
PRICES OF SECURITIES— Industrials Fixed interest		143 97 - 9	136 96·0	135 93·9	124 95-5	120 10 0 -3	112 99·7	101·3	96 103·5	94 100·2	86 101·5	87 92·6	93
SHORT MONEY	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	158	160	189	136	82	69	65	68	75	62	168	

VALUE OF EXPORTS OF BRITISH PRODUCE. &Mn.

	Reco	rded	Normal	Season.
Quarters.	1930	1931	1930	1931
1.	164	103	165	105
2	141	96	148	101
3	136	93	131	90
4	129	97	126	93
Year	570	389	570	389

The detail on p. 14 of commodities and countries shows that the fall took place in all the commodities, and in the great majority of entries, to every country separately shown.

PRODUCTION AND EMPLOYMENT.—The general index of production (see p. 17) usually shows greater output in the 1st and 4th quarters than in the middle of the year. The movement in 1931 can be seen well by comparing it with 1928, a year during which there were few disturbances in prices or employment, while the reduction is seen by comparison with 1929.

INDEX NUMBERS OF PRODUCTION. Average 1924 = 100 (Agriculture and Building are not included.)

	1928	1929	1930	1931
1st Qr	106	108	110	85
2nd ,,	104	111	101	81
3rd ,,	95	108	91	81
4th ,,	105	115	93	891

It is seen that the normal fall did not take place in the third quarter of 1931,

while the increase in the fourth quarter is comparable with that in 1928.

In 1931 as a whole the fall was marked in coal, iron and steel and their products, and textiles, and less noticeable in food, &c., and chemicals. In the fourth quarter the improvement was general, and in steel and the textile industries and paper the output of the fourth quarter of the previous year was exceeded.

Unemployment was nearly stationary during the year, varying only between 20.3% in May and 22.6% in September. There was some reduction during the autumn months, chiefly in the northern half of England.

PERCENTAGE OF INSURED PERSONS UNEMPLOYED 1930 1930 1931 1931 20·3 21·2 Sept. 17.6 Oct. 18.7 22.6 12.6 21.1 May 15·3 15·4 Jan. 21.9 Feb. 13.1 21.3 June Nov. 18.9 Dec. 19.9 16.7 Mar. 14.0 21.0 July 22:0 April 14.6 17.1 Aug.

Apart from a seasonal reduction from February to May, 1932 the increase was uninterrupted from September, 1929 to September, 1931.

Generally speaking the most recent statistics of output indicate some improvement in the last quarter of the year, but not in all industries or in all localities. See p. 17.

TABLE A. NET IMPORTS OF RAW MATERIALS (EXCLUDING RUBBER) AND CERTAIN PARTLY MANUFACTURED GOODS. DECLARED VALUES. £ Mn.

	1924. Quarterly			1929.			1	980.			19	931.	
	Average.	1	Qu 2	arters. 3	4	1	Qua 2	rters.	4	1_1_	Quai 2	ters, 3	4
Pig iron, etc Copper, tin, lead, zinc Yarns Leather	1.8 5.4 1.8 2.9	1·1 5·0 1·8 2·9	1·4 6·2 2·1 3·1	1:3 5:4 2:0 2:9	1.4 5.8 2.1 4.8	1.6 5.0 1.8 3.0	1.2 4.6 1.5 2.9	1·2 3·9 1·3 2·8	1·3 3·4 1·6 3·1	1·0 3·1 1·3 2·3	.9 3.4 1.2 2.5	-9 2-6 1-1 2-4	1.4 2.8 1.6 3.5
Minerals (non-metals) Iron Ore	1·3 2·1 3·7 12·6 12·1 2·0 2·9	1·2 1·4 3·9 5·9 11·7 1·2 2·5	1·3 1·5 5·1 7·8 10·7 •9 3·4 •4	1.5 1.8 3.7 17.4 9.7 2.9 3.4	1·4 1·8 3·9 13·9 9·8 2·5 3·7	1:3 1:7 3:7 6:9 9:1 2:7 2:9	1.4 1.6 3.6 9.0 9.2 .8 3.2	1:2 1:0 2:5 15:4 7:3 1:9 3:0	1.0 .9 2.3 11.0 6.8 .9 3.0	1:0 -7 1:8 4:2 6:6 -9 2:3	.9 .7 2.0 5.4 6.9 .0 2.0	.9 .5 1.5 11.2 5.3 1.2 2.6	.9 .5 1.7 8.0 5.3 1.2 3.0
Other Textiles (except Cotton and Wool) Cotton Wool	3:4 27:5 10:9	4·9 25·2 14·1	3·3 15·4 13·5	2·0 8·6 4·5	4·0 23·6 6·1	4·0 16·3 12·5	2·3 8·7 7·3	1·1 4·6 4·0	1:4 12:0 4:6	1.8 7.3 8.8	1.6 5.5 8.0	·9 3·8 2·1	2·4 9·5 4·9
Total, both groups and miscellaneous	92.8	85.8	78-5	70-3	88.2	75.7	59•6	54.3	56:0	45.5	42.9	39.5	49.1
Total, excl. cotton and wool	54:4	46.5	49.6	57:2	58.5	46.9	43.6	45.7	39.4	29-4	29.4	33*6	34.7

IRON AND STEEL STATISTICS FOR U.K. 000 tons.

		I	PIG-IRC	N.†				CRUDI	e stee	L.		RTS OF STEEL.
		Produc- tion	+ Im- ports	- Ex-	= Home Cons'mp- tion	% Imports to Home Consump- tion	Pro- duction	*Im- ports	Home Con- sumption	% Imports to Home Con- sumption	Semi- Finished	Finished
1913	Qrly. aver ge	2565	46	236	2375	1.9	1916	215	2131	10	209	751
1923	2,	1860	27	223	1664	1.6	2122	138	2263	6.1	540	1153
1924	"	1840	77	150	1756	4.4	2054	271	2324	11.7	470	1146
1925	,,	1 559	71	140	1490	4.8	1849	289	2139	13.5	188	600
1926	,,	610	124	148	653	1.9	890	390	1280	30.5	145	521
1927	,,	1826	152	83	1895	8.0	2275	421	2695	15.6	251	712
1928	1 2 3 4	1704 1718 1561 1628	53 27 14 26	104 116 101 134	1653 1629 1474 1520	3·2 1·6 ·9 1·7	2184 2105 2034 2202	329 287 252 277	2513 2392 2286 2479	13·1 12·0 11·0 11·2	219 246 243 272	734 702 652 720
1929	1 2 3 4	1674 1924 2018 1963	30 29 55 39	143 156 167 79	1561 1797 1906 1923	1·9 1·6 8·7 2·0	2404 2483 2406 2366	200 268 252 270	2604 2751 2658 2636	7·6 9·7 9·5 10·2	265 237 250 258	737 692 653 716
1930	1 2 3 4	1923 1797 1328 1149	72 68 109 62	107 84 87 39	1888 1781 1350 1172	3·8 3·8 8·1 5·3	2374 1988 1653 1284	334 245 210 300	2708 2233 1863 1584	12·3 10·9 11·3 18·9	225 159 150 139	647 567 506 426
1931	1 2 3 4	1012 993 841 911	67 83 62 93	48 63 44 47	1031 1014 859 958	6·5 8·2 7·2 9·7	1389 1261 1186 1339	227 294 302 434	1616 1555 1489 1773	14·0 18·9 20·3 24·5	99 98 88 106	331 355 316 374

[†] Inc. Ferrous Alloys.

TABLE B.

EXPORTED MANUFACTURES-DECLARED VALUES. & Mn.

			1924 Qrly.			29 rters.				930 rters.			19 Quar		
			Av.	1	ž	3	4	1	2ັ	3	4	1	2 ~	3	4
Coke			1.6	1.1	.8	1.1	1.2	1.0	-6	-9	1.0	-8	•5	•7	-9
Earthenware	•••		3.5	3.1	.8	3.7	3.7	3.3	3.1	3.0	2.6	2.0	2.2	2.1	2.1
Iron & Steel	•••	•••	18.2	17.3	32.9	16.3	17.6	15.4	13.3	11.9	10.8	8.0	7.8	6.9	7.7
Other Metals		•••	3.9	4.4	11.1	4.6	4.6	3.7	3.0	2.6	2.7	2.0	1.6	1.7	1.6
Cutlery	•••	•••	5.5	2.1	·5 6·5	2.4	2.5	2.0	1.9	1.8	1.7	1.3	1.3	1.3	1.4
Electrical Good	s	•••	2.7	2.8	6.5	3.2	3.8	3.3	2.9	3.1	2.7	2.3	1.9	1.6	1.6
Machinery	•••		11.2	13.3	5.4	13.3	14.3	13.0	12.0	11.0	11.0	8.8	8:2	7.3	8.2
Wood	•••	•••	•5	.6	6.4	.7	•9	-6	•5	·6	•5	-4	4	- 3	•4
Cotton			49.8	37.6	3.5	34.1	30.9	30.3	21.6	19.5	16.2	15.2	13.4	14.1	13.9
Wool			17.0	14.8	16.7	15.3	11.6	12.2	7.2	9.7	7.8	7.4	5.0	6.8	5.9
Silk		•••	•5	-5	4.6	•5	.6	-4	•4	•4	•3	•3	•3	.3	.5
Other Textiles	•••	•••	6.9	6.7	2.3	7:0	6.6	5.8	4.9	4.6	4.1	3.2	3.1	3.1	3·2 3·4
Apparel	•••	•••	7.5	6.3	3.3	7.2	6.7	5.8	4.3	5.3	4.4	3.8	3.0	3.8	3.4
Chemicals		•••	6.4	6.4	13.5	6.2	7.7	6.2	5.6	5.1	5.0	4.3	4.6	3.9	4.2
Oils	•••	•••	2.2	2.1	2.1	2.1	2.2	2.1	1.9	1.8.	1.6	1.4	1.3	1.2	1.3
Leather			1.8	1.7	1.9	2.1	2.1	1.5	1.5	1.2	1.1	•8	.8	•8	.9
Paper	•••		2.3	2.2	2.3	2.5	2.8	2.3	2.1	2.1	1.9	1.6	1.2	1.6	1.7
Vehicles*			6.7	12.3	13.7	12.5	11.7	11.0	15.2	11.6	12.9	8.3	9.0	7:0	4.0
Rubber†	•••	•••	1.2	.8	.9	.9	*8	.8	.7	•7	•6	•5	.6	•5	•5
Total, includin	g Mi	scel-													
laneous			154.7	145.1	138.9	146.2	143.6	128.4	110.3	104.8	96.3	78.4	72.0	70.7	69.5

^{*} Including rubber tyres after 1924.

^{*} Blooms, Billete, Sheet and Tinplate Bars.

[†] Excluding rubber tyres after 1924.

Value of chief articles exported in the Years 1930 and 1931 to the principal countries concerned.

	DBG/25UHSTSWING TO STORE WIT	principal countries co	oncern	ied.			
	Year. 1930 19		Year 1930	r. 193 ¹			ear. 1931
	£000	15.00	£00	00		£	200
POTTERY, ETC. U.S.A	648 3	RAIL LOCOMOTIVES (Steam 2 and other)			COTTON PIECE GOODS-continued		
Brazil	154	4 Argentine		405	India & Ceylon Iraq	14 2 56 746	5847 544
Argentine British S. Africa		6 Rest of S. America 4 British S. Africa	188 336	36 42	Straits Settlements & Malay	.,.	
British India		9 British India	1547	650	States	835 4622	466 3250
New Zealand	315 1	U g	940	364	New Zealand Canada	1087 1093	767 746
Canada Other Countries	817 7	5	3751	1497	Other Countries	7026	4635
	4834 31	MACHINERY (Electrical). Europe	1400	1077		60353	36504
To. S. Ireland		1 S. America	734	1273 369	To S. Ireland WOOL TOPS & WORSTED	952	819
		S. Africa		379 714	YARN.		
PIGIRON & FERRO ALLOYS Belgium	249	Australia 1 Other Countries	732	133	Sweden Germany	588 2055	472 1430
France	234 1	0 4		1491	Japan	110	172
Italy U.S.A Other Countries	314	4 🛚		4359	Other Countries	1219 33 3 6	869 2485
Other Countries	871 7	9 MACHINERY (Prime Movers, not electrical).		machata.		7308	5428
	1815 10	8 Russia	201	488	To S. Ireland†	235	204
DY AMERICA CITATIONICS		Spain	76	128 47	WOOL & WORSTED TISSUES		
PLATES & SHEETS (not coated).		S. America	597 344	407 189	Germany Netherlands	2016 710	1242 603
Japan British India	393 1	British S. Africa British India and Ceylon	214	170	Belgium	717	566
Australia & New Zealand	544 1	6 Straits Settlements	101	573 60	Italy	1077 766	856 367
Other Countries		- Other Countries	273 1262	138 693	Other European Countries China	1811 1037	1662 1060
	3521 19	1		2893	Japan U.S.A	759 1541	813
GALVANISED SHEETS.		TEXTILE MACHINERY.	4104	2895	Chile and Peru	581	695 176
Dutch E Indies	197 1	7 Russia	760	157	Brazil, Uruguay, Argentine British S. Africa	2577 795	1486 771
Argentine, Uruguay British W. Africa		Germany 9 Netherlands	382 386	219 200	Australia New Zealand	489 497	58 315
British S. Africa British India		7 France	775 1451	441 989	Canada Other Countries	2673	1324
Australia	525	8 China	707	407	Other Countries	4076	2742
Other Countries	1		435 306	263 160	To S. Ireland	22122 629	14736 557
100 100 100 100 100 100 100 100 100 100	5919 31	S. America	242	237 1749	LINEN PIECE GOODS.		
To S. Ireland	220 1	2 Australia	193 478	82 377	U.S.A	1259 204	1327 87
SHEETS (Tinned, etc.)		- Other Countries			Cuba Brazil and Argentine	293	129
Norway				5281	Australia and New Zealand Canada	455 230	322 177
Germany Netherlands		4 COTTON YARN. 4 Norway, Sweden, Denmark	639	537	Other Countries	1542	1086
Netherlands France Spain	397 1	3 Germany and Poland	5042 3 1665	3599 992	APPAREL.	3983	3128
Italy	294	7 Belgium	674	361	British S. Africa	1877	1408
China (with Hong Kong)	530 2 544 4	France 7 Switzerland	575 853	368 643	New Zealand	174 805	15 461
Japan Brazil	382 3 339 2	8 Bulgaria	110 465	133 374	Canada	312 3010	182 2293
Argentine	507 2	1 U.S.A	370	219	Other Countries		
Straits Setts, and Malay	248 1 515 2	6 Argentine	286 141	254 143	To S. Ireland	6178 1341	4359 1288
Canada	1051 6 613 6	5 China and Hong Kong	1076 289	787 703	BOOTS AND SHOES.		1
Other Countries	2832 21	8 Australia	372	271 186	British S. Africa	542	330 235
	10117 67	Other Countries		1325	Other Countries	514 1486	973
COPPER MANUFACTURES			14455 10	0895	보이면 12개의 기능 보는 경기로 하지만 하는 것이 되었습니다. 이 기능 등로 기능한 기능 등 기를	2542	1538
Egypt	88 88	COTTON PIECE GOODS.		$\equiv 1$	To S. Ireland	1507	1366
British India	339 19 113 3	Norway, Sweden, Denmark		1844 766	LEATHER. Germany	210	199
New Zealand Other Countries	226 10 1131 63	Netherlands	1033	705	France	319 349	283
		Turkey	550	839 572	U.S.A Other Countries	1259 1679	455 1149
THENT / DV . A.	1897 104	- Dulch is indies		2445 892		3606	2086
FIN (Blocks, etc.) Sweden	195 10	China (with Hong Kong)	1867 2	2146 587	To S. Ireland	400	374
Germany	116 3 504 20	Peru & Chile	1173	338	PAPER.		
U.S.A	1479 51	Argentine Urnaner	4365 2	93 2773	Foreign Countries British India	585 236	478 167
Other Countries	49 2 1084 53	Colombia	583	682 L208	Australia and New Zealand Other British Possessions	1803 535	1126 463
	3427 142	British S., W. & E. Africa	5464 3	3596			
		Foreign W. & E. Airies	1567	763		3159	2234

STOCKS OF STAPLE COMMODITIES

Pegir	nning of	(1) American Cotton. 1,000 bales	(2) Copper. 1,000 tons.	(3) Tin. 1,000 tons.	1,000 U.S.	ad.	(5) Spelter 1,000 tons,	(6) Rubber. 1,000 tons.	(7) Sugar. 1,000 tons.	(8) Tea. Mn. lbs.	(9) Coffee. 1,000 bags.	(10) Wheat. Mn. bush.	(11) Petrol- eum. Mn. barrels.
	Jan April July	3,870	401 479 522	35:9 41:1 49:1	50.8 41.1 49.6	2·0 6·8 7·4	73 90 109	383 426 430	5,614 6,125 6,196	260 210 209	25,063 27,470 28,424	584 518 379	630 639 632
	Oct Nov Dec	6,097	545 554 543	47·5 47·5 47·5	65·8 75·3 80·7	6·2 6·2 7·2	131 139 142	1483 492 491	3,629 4,488 6,175	222 235 243	29,860 29,366 30,447	544 528 541	613 611 609
Service of the Control of the Contro	Jan. Feb. Mar. April May June	6,578 6,888 7,000	535 525 519 510 523 551	51·0 53·1 57·7 58·4 57·9 60·0	92·2 101·0 110·0 116·5 119·2 127·1	8·3 10·5 13·2 13·5 14·0 13·6	140 142 142 140 143 146	506 526 533 547 552 543	7,018 7,218 7,573 8,453 8,270 7,779	262 274 270 242 212 205	29,309 28,829 28,457 28,292 27,504 26,351	583 602 630 600 531 490	603 597 593 591 592 591
	July		564 582 596 623 *	60·4 60·1 61·5 59·9 59·4 59·1	124.6 117.8 119.6 118.6 124.9 128.6	13·5 14·4 13·9 13·2 12·5 12·5	144 139 138 138 139 139	545 561 568 570 615 638	7,007 6,086 7,160 6,811 7,621 8,897	203 198 206 195 207 219	25,537 27,827 30,012 31,405 32,166 33,259	445 463	587. 583 570 557 553 557
1932	Jan	8,7291	*	59.7		13.1	137			260		1	

^{*} Not Available.

- 1 "U.S.A. Affoat" no longer available.
- (1) Total supply seasonally corrected, exclusive of European and Asiatic mill stocks.
- (2) Total supply outside hands of consumers less Japan Stocks.
- (3) London Metal Exchange Visible Supply plus "Tin" estimate of Straits Stocks.
- (4) U.S. and Mexico refined stocks to April, 1920. U.S. only since: U.K. stocks in official warehouses.
- (5) Visible supply in U.K. and U.S.

- (6) An estimate of World's stocks supplied by Rubber Growers' Association.
- (7) Total visible supply, exclusive of Interior Stocks in Cuba prior to Oct., 1928.
- (8) Bonded Warehouse Stocks to Jan., 1929. Tea Brokers' Assocsince.
 (9) Visible supply in Brazil (Ports and Interior). Europe & U.S.A.
- (10) Stanford Wheat Studies Estimate of World's Visible Supply.
- (11) Stocks of Crude and Refined Oils in U.S.

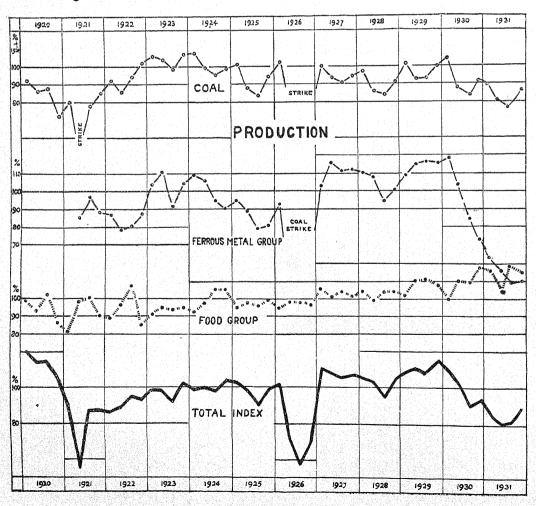
[†] Provisional.

THE PHYSICAL VOLUME OF PRODUCTION.

THE Index Number of Production for the fourth quarter of 1931 is 89.5. This indicates an increase over the preceding quarter of 8 points, and a decrease as compared with the corresponding quarter of 1930 of 3 points. normally a seasonal movement in production which makes the figure for the third quarter lower than that for the other quarters of the year, so that we should anticipate that the figure for the fourth quarter would be higher than that for the third quarter. Last year when production was on the decline, this advance was only to the extent of 2 points (from 90.7 to 92.7); this year the advance is 8 points, and this certainly suggests that the general decline in production has been stayed.

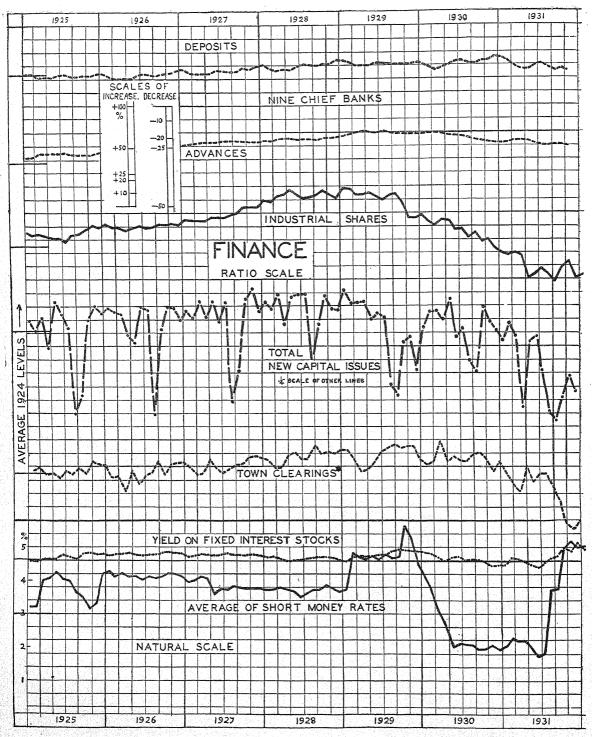
Turning to individual industries, we find the output of coal, pig-iron and steel is still at a low ebb; the iron and steel group figures are very low, partly owing to the low levels for shipbuilding and rail-way vehicles. The non-ferrous group index is again comparatively high, and the textile index shows a remarkable advance, due to the increase in the cotton figure. The food group is again maintained at a high level, and paper shows a very large increase.

QUARTERLY INDEX OF PRODUCTION.



QUARTERLY INDEX NUMBERS OF PRODUCTION. Average 1924=100.

Group:	Industry	Average quarterly production, 1924.	Weights.	Year., 1924	1925	1926	1927	1928	1929	1930	1931
: đi	1	1.00	hts.	0 12 10 10 10 4	. HØW4	. на <i>ю</i> а	- HØK94	- HONA	- 4000	+ 100	+ 126
ï	Coal- mining.	000 tons 67,308	232	107:3 99:3 95:0 98:4	100.8 87.8 83.6	102.5 29.8 10.4	100.0 93.5 90.8 94.1	97.1 85.1 91.4	101.2 93:1 93:3	104·2 87·8 83·7	88.3 81.4 76.2
	Pig. Iron.	000 tons 1,827	12	105.0 102.8 97.1 96.3	94.4 90.6 75.9	26.78 26.78 5.84.48	91.8 112.3 100.3 94.8	93:3 94:0 85:4	91.6 105.3 110.5	105·1 98·4 72·7 62·9	55.4 54.4 46.0
	Steel.	000 tons 2,050	98	111.2 106.0 90.8 92.8	94·7 89·5 83·3	103.8 36.1 8.8 84.9	122:3 121:1 102:8 97:7	106:5 102:7 99:2 107:4	117.0 120.0 120.0	118.4 97.0 82.5 64.0	67.7 62.9 57.9
Ħ	Ship- building	000 tons 1,373	63	100.0 106.7 103.1 90.1	79·5 74·1 67·6 57·4	55.6 55.6 48.1	87-2 100-6 111-8	104·9 87·6 79·4 90·5	98.8 105.9 113.6	117·6 101·4 81·4 66·2	50.6 40.5 30.4
	Ship- Railway building Vehicles	tons 9,929	5	142.7 112.9 78.3 66.1	167-9 150-0 111-9 98-5	188-6 149-1 94-0 82-6	67.0 155.7 196.3 244.6	199-3 265-1 154-2 126-2	139·9 131·6 152·8 149·9	149.0 180.8 151.2 189.8	104·9 75·7 76·2
	Group Index.		341	109.0 106.2 94.6 90.6	95·1 89·2 79·4 81·1	92.8 49.4 25.1	103.4 116.0 111.3 112.0	110°1 107°7 94°9 100°8	109.1 114.8 116.4 115.9	118·1 104·1 85·2 72·9	63.2 55.8 49.1 50.1
	Copper.	tons 39,626	99	96.9 93.8 104.1 105.0	97.4 95.7 104.8 94.3	110-9 95-8 118-8 116-7	119.7 132.0 112.4 125.9	125·8 126·1 120·6 118·2	117.4 120.8 114.7 120.1	103·1 121·1 129·4 114·5	88.6 104.2 85.0 96.5
III.	Lead, Tin and Zinc.	tons 87,967	99	96·4 87·3 118·5 97·7	102.3 108.9 117.0 124.9	123·8 111·1 110·4 121·5	151.6 115.8 124.4 114.2	109.9 120.0 94.3 106.5	120°4 120°4 109°7	119.7 113.7 100.4 123.9	96.0 138.1 115.7 123.6
	Group Index.		25	96.6 90.4 111.6 101.2	100.0 102.6 111.2 110.3	117.6 103.8 114.4 119.2	125.9 123.5 118.7 119.8	117·5 122·9 106·9 112·1	111:5 120:5 117:7 114:7	111.8 117.2 114.3 119.4	92.4 121.9 101.0
	Cotton.	bales 689	\$ %	104·2 90·4 79·7 126·0	136.9 120.6 101.6 135.1	135.0 102.8 81.7 107.2	142.8 120.2 109.6 109.3	114.4 109.0 92.9 115.0	117.6 111.4 85.8 118.6	107:3 86:4 61:3 81:3	71.7 78.1 74.3 102.0
IV.	Silk.†		10	74.6 94.3 111.5 119.5	112.2 152.0 81.9 79.3	92.7 96.5 86.3 105.0	108-2 101-8 96-9 147-6	151·1 136·6 140·8 158·0	147·3 142·2 162·8 175·0	159.0 125.0 127.2 140.7	142.0 139.7 145.7 145.6*
	Group Index.		216	101.0 90.8 83.2 125.3	134.2 124.0 99.5 129.0	130.4 102.1 82.2 107.0	139.0 118.2 108.2 113.5	118.4 112.0 98.1 119.7	120°8 114°7 94°1 124°5	112.9 90.6 68.4 87.7	79·3 84·8 82·1 106·7*
	Wheat and Flour.	000 cwts. 31,914	90	85.4 99.6 111.6 103.3	89.2 89.3 88.4 91.1	82.2 87.0 97.9 84.0	92.4 103.6 98.0 92.3	93.2 86.4 92.7 91.8	87.0 94.9 100.1 91.4	81.3 91.8 99.8 101.9	89.9 97.5 110.8 114.2
Δ	Cocoa.	cwts. 259,231	7.7	109·6 89·6 88·7 112·1	109-9 113-3 99-2 112-1	119.3 114.4 87.6 113.9	144·3 82·4 102·8 101·3	121.4 103.7 102.5 101.0	115·3 116·7 103·4 108·3	99.9 121.7 96.5 121.6	151.2 95.9 118.6 99.5
>	Tobacco	000 lbs. 36,477	78	95.6 99.7 101.9 102.7	96.3 105.2 110.2 108.5	102.5 112.7 104.8 112.8	107.2 110.0 118.7 121.9	116.9 124.3 127.7 133.6	123·3 139·1 141·1 142·1	138.3 136.7 138.0 145.4	142.9 122.5 132.8 128.4
	Group Index.		509	92.5 97.8 104.9	94.8 97.8 96.0 99.4	95.3 98.6 97.8 96.8	105.7 101.4 104.2 101.6	104.4 99.3 103.5 104.2	101.9 110.6 111.3 107.9	99.8 110.3 109.3 117.1	115:3 103:8 118:1 115:2
٧1.	Oil Seed crush- ing.	tons 435.3		109·9 97·8 87·8 104·5	118·2 91·1 93·0 84·6	92.8 84.6 80.4 59.7	82.8 77.5 66.8 70.6	98-8 99-8 79-5 72-7	109·2 86·0 69·7 87·7	79.7 69.2 59.1 75.7	82.0 86.4 67.4 75.8
	Group Index (incl. heavy Chemi- cals.)		62	95.4 103.0 101.0 101.2	107.6 94.4 82.4 87.4	90.0 79.5 72.6 84.4	107·0 92·6 92·8 97·9	104·8 103·8 93·3 102·7	100:1 102:1 103:4 105:4	94.5 88.8 97.7 84.2	83.9 82.5 73.9 80.0*
٧١١.	Paper.	000 tons 244·3	86	53.7 104.9 127.2 114.2	77.3 99.4 108.6 111.2	91.7 114.4 114.8 103.5	109·0 112·1 126·4 124·2	82.4 118:0 99:8 122:9	111.2 136.6 139.7 147.0	116.3 127.0 125.4 122.5	101.6 94.0 121.1 142.6
	Final Index.		1183	98.8 99.9 97.9 103.8	103.6 98.3 90.1 99.1	102.2 72.0 57.3 69.7	110.8 108.1 105.9 107.4	105.7 103.7 95.4 105.2	108'3 111'0 108'8 114'8	109.6 100.9 90.7 92.7	85.1 80.6 81.1 89.5



Scale applicable to all lines except the two lowest.

* NORMAL SEASONAL CHANGE REMOVED.

FINANCE.

- Marie Control of the Control of th		TOC	KS & S	HARE	s		T	BANK	CLEA			N-SCHOOL STREET	na Proposition of the	OTI	ier b	ankii	īG.	NICH COLUMN			1	M	ONEY.	
	1	dustri	als	Fixed	1	NEV CAPIT ISSU	AL		n Bank ng Hou	ers'	Pro- vincial	Ban	k of			3 Clea				BIT, T.R		Index.	rate.	rate.
	New Index	Sensitive Index	Month-to-Month Variations	Index of Price	Index of Yield	ior U.K.	for Abroad.	Tow		Country.	11 Towns.	Private Deposits.	Bank and Curreney Notes. I	Deposits.	Discounts.	Advances.	invest- ments.	Ratio of Cash to Deposits.	Ratio of Advances to	10	- 8	Short Money In	Day to day	3 months'
	%	20	× %	%	%	2 Mn	e Mu.	£M	n.	£Mn.	2Mn.	£Mn.	£Mn.	£Mn.	£Mn.	£Mn.	£Mn.	%	%	£1	In.	<u>20</u>	%	%
1924 Average	10	0		100	100	7.4	11.2	2070	₩	226	147	109	390	1632	242	791	324	11.7	48	5 6	301	r00	2.43	3.45
1925 1st Qr. Av 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	10)6)7		98.0	99·7 101·5 102·2 103·9	13·8 14·6 3·8 11·9	5·3 7·8 3·1 13·1	2230 2140 1950 2140	2130 2080 2100 2230	235 235 221 234	150* 140* 135 146	114 107 112 110	385	1634 1609 1619 1631	227 199 231 237	827 849 841 841	289 273 257 261	11.8 11.9 11.8	52·	7 6	73 315	116 138 125 119	3·10 3·96 3·41 3·42	4·03 4·46 4·08 4·01
1926 1st Qr. Av 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	1	L4 L3 L4 L6		96·8 97·0 96·2 95·5	103·3 103·1 103·9 104·7	14·7 8·1 8·5 15·7	11·3 9·8 6·2 10·2	2070 2100 1990 2150	1970 2040 2150 2250	231 219 205 226	141 123 117 128	107 103 108 104	381 374	1610 1600 1634 1662	195 226		255 244 247 25		54. 3 53.	6	578 624	140 137 137 140	4·15 3·92 3·95 4·02	4·54 4·37 4·40 4·63
1927 1st Qr. A 2nd ,, , 3rd ,, , 4th ,, ,	v. 1 , 1	19 21 24 31		97·0 96·6 96·6 97·3	102·9 103·5 103·5 102·8	17·8 16·5 7·2 17·2	9·8 5·8 6·8 20·4	2228 2253 2040 2240	2117 2190 2200 2340	251 238 224 238	135 131 129 140	105 98 100 101	377 376	1660 1659 1672 1711	200	913 919	23' 23'	11.	7 55 5 54	9	576 609	135 127 126 125	3·91 3·68 3·66 3·59	4·23 4·07 4·33 4·32
1928 1st Qr. A 2nd ,, , 3rd ,, ,	v. 1	38 45 41		98·6 100·4 98·9	101·4 99·6 101·2	18·5 20·6 12·4	16·0 12·5 9·8	2320 2430 2240	2210 2360 2420	237 242 227	138 133 122	108 100 108	374	170 170 173	3 210	934	23	3 11.	1 54	-8	594 541 605	125 121 123	3·58 3·52 3·52	4·22 3·91 4·16
OCT NOV DEC]	.46 .43 .39		98·2 98·7 100·1	101·8 101·4 99·9	29·7 17·0 18·0	10.9 11.0 6.7	2350 2330 2320	2430 2410 24 70	244 236 245	130 125 140	10 9 57+		175 175 180	2 24	8 94	2 24 6 24	1 11.	0 53 3 52	8 2 4 2 4	654 703 779	130 125 123	4·06 3·52 3·25	4·33 4·38 4·36
1929 JAN FEB MAR APR MAY JUNE.		L49 L48 L43 L43 L44 L44	- 1·0 - 3·4 0 + 0·3 - 2·7	101·1 98·2 97·1 97·9 97·2 97·3	98·9 101·9 102·9 102·3 102·9 103·5	12.3	29·4 6·8 9·0 6·0 8·8 11·4	2210 2250	2310 2120 2150 2250	253 241	131 138 136 127 118 122	58+ 63+ 61+	37 361 36 353 38 355 36 359 36 363 36 362	180 177 173 174 173 177	7 26 9 21 3 19 52 19	0 96 4 98 1 98 5 97	8 24 0 24 7 24 7 24	6 10 4 10 4 10 4 10	5 5 6 5 8 5	2·9 1·5 6·4 6·6 5·3	780 774 712 707 702 756	125 162 160 158 159 156	3.54 5.06 4.58 4.44 4.69 4.23	4·31 5·23 5·38 5·27 5·23 5·28
JULY . AUG SEPT. OCT NOV DEC		136 142 144 135 121	- 4.2 + 2.5 + 1.1 - 5.2 -11.3 + 0.5	94.1	106.2 107.0 106.5 106.3	2·2 1·5 7·5 6·3	6.6	2250 2410 2440 2450) 2560) 2510) 2530) 2530	226 224 248 248 242	112 114 123 123	65+ 63+ 70+ 55+	-36 367 -36 371 -36 362 -37 360 -42 358 -36 365	170	59 22 54 22 55 22 51 23	25 98 22 97 27 97 31 97	30 2 71 2 71 2 70 2	12 10 12 10 12 10 11 10 35 10 36 11)·7 5)·9 5)·7 5	5·4 5·7 5·4 5·0 5·4 4·8	757 776 772 787 792 805	160 156 157 189 177 151	4·73 4·13 4·21 5·27 5·38 4·64	5·33 5·47 5·49 6·22 5·66 4·80
JAN FEB MAR APR MAY		124 119 116 120 119 112	+ 0.3 - 4.6 - 2.6 + 6.5 - 7.0	95.5 96.1 98.1 100.3 98.4	104.1 104.1 102.1 99.1	7 11:3 2 8:0 0 16:9 7 11:9 7 17:1	18.5	2 240 1 277 1 234 1 236	0 2 280 0 2630 0 2280 0 2360	236 237 249 249 238	12: 12: 11: 11: 10:	1 59+ 1 59+ 1 66+ 1 58+	-36 352 -35 348 -36 350 -36 361 -36 356 -35 364	17 16 17 17	14 2 82 1 12 2 42 2	07 9' 4 6 9	73 2 76 2 70 2 57 2	29 10 25 10 25 10 31 10)·6	4·9 6·8 8·0 6·7 6·9 53·6	758 678 615 571 585 618	136 125 104 82 68 71	4·04 3·85 3·35 2·23 1·94 2·13	4·11 3·96 3·03 2·49 2·14 2·33
JULY AUG SEPT.		112 106 110 103	+ 0.6 - 7.5 + 6.6 - 9.5 + 2.5	99.5 99.5 99.5 101.5 103.	7 100° 2 100° 7 100° 98° 98°	4 13· 9 3· 4 2· 7 12· 3 11·	5 3· 4 2· 8 17· 5 8·	1 210 6 234 7 222 4 207	0 240 0 243 0 230 0 214	0 22 0 20 0 23 0 22	1 9 7 8 0 9 6 10	5 66- 9 65- 5 66- 0 60-	-36 36 -34 36 -34 35 -36 35 -33 35 -33 37	7 17 3 17 7 17 5 18	67 2 64 2 91 2 01 3	79 9 84 9 96 9 10 9	36 2 27 2 24 2 20 2	50 10 55 10 57 1 65 1	0.6 1 0.6 1 0.5 1	53·1 53·0 52·6 51·6 51·1 49·7	633 648 649 656 672 706	69 69 65 65 70 66	1.65 2.04	2·29 2·09 2·11 2·23
JAN FEB MAR APR. MAY JUNE		96 94 95:5 94 80 82	- 4·	0 103. 5 98. 7 99. 0 100. 0 103.	5 96 5 101 6 100 2 99 0 97	8 6 6 7 9 1	0 13 4 6 4 9 10	6 206 0 196 3 22 1 198	80 <i>195</i> 80 <i>186</i> 70 <i>221</i> 80 <i>198</i>	0 21 0 21 0 22 0 21	8 9	9 58- 8 59- 4 61-	+33 35 +34 34 +33 35 +35 35 +34 35 +34 35	$ \begin{array}{c cccc} 7 & 17 \\ 0 & 17 \\ 4 & 16 \end{array} $	726 2 398 2 700 2	199 9 138 9 109 9 122 9	109 121 125 119	93 1 95 1 92 1	0.5 0.5 0.3 0.4	49·5 51·0 53·3 54·5 54·1 52·1	784 646 587 559 571 623	68 76 75 75 68 60	2·50 2·23 2·31 1·98	2·52 3 2·62 1 2·61 8 2·26
JULY AUG SEPT OCT NOV. DEC.		86 82 78 87 92 81	+ 8 - 6 - 3 +15 + 8 - 16	1 101 8 99 3 97 8 92 8 94	5 98 2 101 9 102 6 108	·7 2 1 ·9 1 ·1 2	3 2 6 3 5 5		30 <i>209</i> 30 <i>198</i> 80 <i>174</i> 30 <i>148</i>	30 20 40 19 30 21 30 22	8 9 92 8 92 7	96 66- 37 58- 79 58- 98 70- 93 60	+34 35 +35 36 +50 35 +51 35 +38 35 +38 36	9 1' 0 1' 2 1 7 1 5 1	708 2 375 2 388 1	261 8 234 8 235 8	395 397 396	286 1 288 1	.0·4 L0·2 L0·2	51·3 52·4 53·6 53·1 53·1	633 655 656 600 626 682	12: 12: 16: 16: 17:	5 3·5 6 3·6 8 4·3 5 5·0	8 4·31 9 4·28 51 5·71 02 5·76
1932 JAN.		82	+ 0	5 93	4 107	·5	CHAI	IGE		VED	1	69	3 8 35	55 Erom	Dec. 19	28 first	figure	Banke †	rs, se	cond i	65 figure	Other		

STOCKS & SHARES-

* Excluding Bradford.

NEW CAPITAL ISSUES-BANK CLEARINGS-

† Exclusive of Investments in Affiliated Banks.

BANK OF ENGLAND-

PRINCIPAL BANKS-TREASURY BILLS-SHORT MONEY INDEX-

Index Nos. of Prices and Yield as percentage of 1924 level; on 15th of month.

Sensitive Index.—Geometric Mean of monthly percentage changes.

Issues during month in Gt. Britain (a), for U. K. (b), for Abroad, excluding Government loans, etc.—See MONTHLY REVIEW OF THE MIDLAND BANK, LTD.

Total of Town Clearings (i.e., excluding Metropolitan) of London Bankers' Clearing House for 3 weeks covering Total of Town Clearings.

2 Stock Exchange settlement days. Consols settlement day, and 4th of following month. Country Clearings of London Bankers' Clearing House and Provincial Clearings for 11 towns—proportionate totals for 24 working days.

Deposits, other than public, 11th-17th of month.

Bank Notes and Currency Notes in circulation 11th-17th of month. Issues amalgamated. November 22nd, 1928.

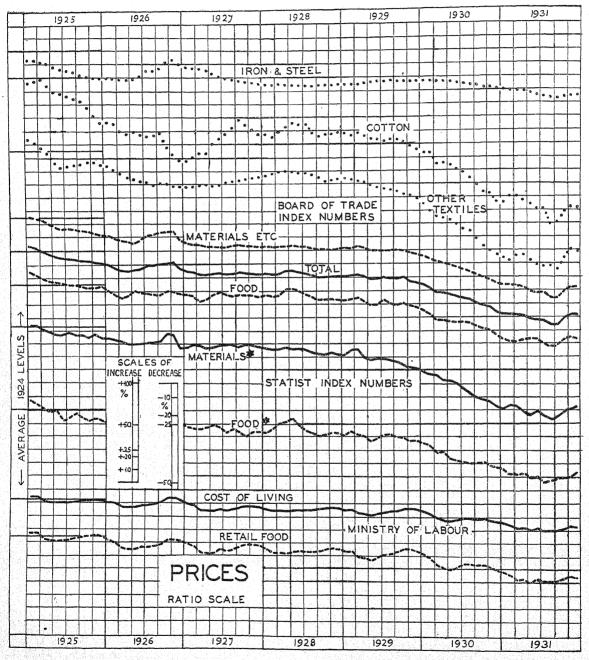
"Current, Deposit and other accounts." etc. Averages for the month of 9 clearing banks (i.e.—excluding the National Bank, Ltd.).—MONTELLY REVIEW OF THE MIDLAND BANK. LTD.

Total cutstanding in middle of month (11th-17th).

Average of Bank Rate, Bankers' Deposit Rate, 3 Months' Bill Rate and day-to-day rate for week ending 15th of month, expressed as percentage of 1924 average.

Day-to-Day Rate and 3 Months' Rate. Averages for week ending 15th of month.

For Table of Exchanges see p. 26.



Scale applicable to all lines.

¥ NORMAL SEASONAL CHANGE REMOVED.

PRICES AND WAGES.

U.S.A. PRICES.

Sil- (Ca d. pe 1924 34 Average 1925 1st Qr. Av 32 2nd , , , , 3 3 3 4th , , , , 2 2 2 2 2 3 3 3 4 4 2 2 2 3 3 3 4 4 2 2 3 3 3 4 4 2 2 3 3 4 4 2 3 3 3 4 4 3 2 3 3 4 4 3 3 3 3 3 3	Bar (1) term	Board of General. % 100 101.6 96.0 93.9 92.0 88.6 87.2 90.4 85.6 84.8 85.1 84.8 84.6 86.1 83.8 83.1 83.0 83.1 83.0 83.1 83.2 83.3 83.4 83.4 81.6 82.7	## Trade Ind Food. ## 100 105.6 100.6 98.3 97.2 92.8 93.1 92.5 93.9 90.8 91.6 91.8 91.3 91.5 95.3 90.4 89.2 89.3 89.1 88.7 89.4 90.3 88.5 86.2	Materials. etc. % 100 99.4 93.6 91.6 89.2 86.3 84.1 89.0 88.5 82.9 81.2 81.6 81.5 81.1 81.4 80.5 79.7 80.0 80.3 80.0 81.2 80.7 79.3	Statil For		Raw Materials. % 100 101 96 96 95 92 89 90 94 88 87 88 89 86 87 84 84 85 84	Total. 100 I 103 97 97 95 92 90 91 92 89 88 87 85 84 85 85 85 84 86 87	M. of Li Cost of Living. % 100 101 99 100 101 98 96 98 101 97 94 94 94 95 96 95	100 102 98 100 101 96 94 95 99 94 91 92 93 94 93 94 95 92 93 94 95 92 95 92 95 92 95 92 95 92 95 92 95 92 95 95 95 95 95 95 95 95 95 95 95 95 95	New Index of Average Weekly Wages 100°5 101 100°5 100°	Too Too	(Pood) (P	
Ca d. pe	ash). per oz. 34.0 32.2 31.4 32.3 31.0 30.2 29.1 25.2 25.3 26.1 26.4 26.3 27.0 26.8 26.7 26.8 26.7 26.8 26.7 26.8 26.7 26.8 26.9 27.0 26.8 26.7 26.8 26.7 26.8 26.7 26.8 26.7 26.8 26.9	% 100 101.6 96.0 93.9 92.0 88.6 87.2 90.2 90.4 85.6 84.8 85.1 84.6 85.8 83.1 83.0 83.1 83.1 83.1 83.1 83.1 83.1 83.1 83.1	% 100 105.6 100.6 98.3 97.2 92.8 93.1 92.5 93.9 90.8 91.6 91.3 91.5 95.3 90.4 89.2 89.3 89.1 88.7 89.4 90.3 88.5 86.3	etc. % 100 99.4 93.6 91.6 89.2 86.3 84.1 89.0 88.5 82.9 81.2 81.6 81.5 81.1 81.4 80.5 79.9 79.7 80.0 80.3 80.0 81.2 80.7 79.3	% 100 105 97 96 93 91 92 93 90 89 91 87 85 89 94 86 84 85 85 87 86 86	% 104 97 96 94 90 91 92 89 92 89 87 86 89 93 86 85 86 85 86 85 87 85	Materials. 100 101 96 96 95 92 89 94 88 87 88 89 86 37 84 84 85 84 84 86 87	100 100 100 100 100 100 100 100 100 100	Living. % 100 101 99 100 101 98 96 98 101 97 94 94 95 96 95	% 100 101 98 100 101 96 94 95 99 94 91 92 92 93 94 93 91 5	Weekly Wages 100** 100.5 101 100.5 100.5 100.5 100.5 100 100.5 101 101 101 100.5 100 99.5 99.5 99.5	% 100 106 5 104 106 106 106 101 100 97 5 97 99 98 100 101 100 99 99	% 100 5 104 5 104 110 107 111 108 107 105 106 107 108 107 106 107 108 107 108 107 108 107 108 107 108 107 108 107 108 107 108 107 106 107 106 107 108 107 106 107 108 107 106 107 108 107 106 107 108 107 106 107 108 107 106 107 108 107 106 107 108 107 106 107 108 107 106 107 108 107 106 107 108 107 106 107 108 107 106 107 108 107 106 107 108 107 106 107 108 107 106 107 108 107 106 107 108 108 107 108 108 107 108 108 107 108 108 108 108 108 108 108 108 108 108	% 100 102* 104‡ 102* 103‡ 101* 100·5‡ 99·5*
1924 34 Average. 1925 1st Qr. Av 35 2nd ,, ,, 35 3rd ,, ,, 36 1st Qr. Av 36 2nd ,, ,, 36 1st Qr. Av 26 2nd ,, ,, 26 2nd ,,	32·2 31·4 32·2 31·4 32·3 33·3 33·2 29·1 25·3 26·1 26·4 26·3 27·0 26·8 26·7 26·8 26·7 26·8 26·7 26·8 26·7 26·8 26·9 27·0 26·8 26·9 26·9 26·9 27·0 26·9	100 101·6 96·0 93·9 92·0 88·6 87·2 90·2 90·4 85·6 84·8 85·1 83·1 83·1 83·2 83·3 83·4 83·4 83·4 83·7 81·6	100 105.6 100.6 98.5 97.2 92.8 93.1 92.5 93.9 90.8 91.6 91.3 91.5 95.3 90.4 89.2 89.3 89.1 88.7 89.4 90.3 88.5 86.5	99.4 93.6 91.6 89.2 86.3 84.1 89.0 88.5 82.9 81.2 81.6 81.5 81.1 80.5 79.9 79.7 80.0 80.3 80.0 81.2 80.7 79.3	100 105 97 96 93 91 92 93 90 89 91 87 85 89 94 86 84 85 85 85 86 86	** 104 97 96 94 90 91 93 92 89 90 87 86 89 93 86 85 86 85 86	100 101 96 96 95 92 89 94 88 87 88 89 86 87 84 84 84 86 87	100 103 97 97 95 92 90 91 92 89 88 87 88 88 85 84 85 85 84 86 87	100 101 99 100 101 98 96 98 101 97 94 94 94 94 95	100 98 100 98 100 101 96 94 95 99 94 91 92 93 94 93 94 93	100.5 101.5 100.5 100.5 100.5 100.5 100.5 100.5 101.101 101.101 100.5 100.99.5 99.5 99.5 99.5	100 106·5 104 106 106 104 102 101 100 97·5 95·5 97 99 98 100 101 100 99 99	100 104 5 104 110 113 111 110 107 111 108 107 105 106 107 108 107 106 107 108 107 108 107 108 107 108 107 108 107 108 107 106	100 102* 104 103 101* 100.5 99.5*
Average. 1925 1940, 35 2nd , , 35 2nd , , 35 4th , , 35 4th , , 35 4th , , 26 1926 1st Qr. Av 31 2nd , , 36 4th , , 26 1927 1st Qr. Av 26 2nd , , 26 3nd , , 26	32·2 31·4 32·3 31·0 35·2 29·1 25·3 26·1 25·5 26·3 27·0 26·8 27·0 26·8 26·7 26·8 26·7 26·8 26·7 26·8 26·7 26·8 26·7 26·8 26·7 26·8 26·7 26·8 26·7 26·7 26·8 26·7 26·8 26·7	101·6 96·0 93·9 92·0 88·6 87·2 90·4 85·6 84·8 85·1 83·1 83·1 83·3 83·1 83·4 83·4 83·4 83·4 83·4 83·6	105:6 100:6 98:5 97:2 92:8 93:1 92:5 93:9 90:8 91:8 91:3 91:5 95:3 90:4 89:2 89:1 89:4 90:3 88:5 86:5	99.4 93.6 91.6 89.2 86.3 84.1 89.0 88.5 82.9 81.2 81.6 81.4 80.5 79.7 80.0 80.3 80.0 81.2 80.7 79.3	105 97 96 93 91 92 93 90 89 91 87 85 89 94 86 84 85 85 85 86 86	104 97 96 94 90 91 93 92 89 90 87 86 89 93 86 85 86 85 86	96 96 95 92 89 90 94 88 87 88 87 84 85 84 84 86 87	103 977 975 92 990 911 92 89 89 88 87 88 88 85 84 85 86 87	101 99 100 101 98 96 98 101 97 94 94 94 94 94 95	102 98 100 101 96 94 95 99 94 91 92 93 94 92 93 94 93	100·5 101 100·5 100·5 100·5 100 100·5 101 101 101 100 100 99·5 99·5 99·5	106·5 104 106 106 104 102 101 100 97·5 95·5 97 99 98 100 100 100 100 99 99	104·5 104 110 113 111 110 107 111 108 107 105 107 104·5 106 107 108 107	102* 104‡ 102* 103‡ 101* 100·5‡ 99·5*
4th ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,,	31 · 0 30 · 2 29 · 1 25 · 2 25 · 3 26 · 1 26 · 4 26 · 3 27 · 0 27 · 0 26 · 8 26 · 4 26 · 3 27 · 0 26 · 8 26 · 4 26 · 3 27 · 0 26 · 8 26 · 1 27 · 0 28 · 8 28 · 0 29 · 0 20 · 3 21 · 0 22 · 3 24 · 2 24 · 2 24 · 2	88.6 87.2 90.4 85.6 84.8 84.6 83.0	92·8 93·1 92·5 93·9 90·8 91·8 91·3 91·5 95·3 90·4 89·2 89·1 88·7 89·3 89·4 90·3 88·5 86·3	86·3 84·1 89·0 88·5 82·9 81·2 81·6 81·5 81·1 81·4 80·5 79·9 79·7 80·0 80·3 80·0 81·2 80·7 79·3	91 92 93 90 89 91 87 85 89 94 86 84 85 85 85 85	90 91 93 92 89 90 87 86 89 93 86 85 86 85 86	92 89 90 94 88 87 88 89 86 87 84 84 84 86 87	92 90 91 92 89 89 88 87 88 85 84 85 84 85 84 86 87	98 96 98 101 97 94 94 94 94 95 95 95	96 94 95 99 94 91 93 96 92 91 92 93 94 93	100·5 100·5 100 100·5 101 101 101 100·5 100 99·5 99·5 99·5	104 102 101 100 97.5 95.5 97 99 98 100 101 100 99	111 110 107 111 108 107 105 107 104-5 106 107 108 107	102* 103‡ 101* 100·5‡ 99·5*
ord " " 25 4th " " 25 1927 1st Qr. Av 25 2nd " " 25 3rd " " 25 4th " 26 3rd " " 26 3rd " " 26 4th " 27 4th " 27 3rd	25·2 25·3 26·1 25·5 26·4 226·3 27·0 26·8 26·7 26·3 26·4 225·3 225·3 225·3 24·2	90.4 85.6 84.8 85.1 84.8 84.6 86.1 83.1 83.1 83.2 83.3 84.4 83.7 81.6	93·9 90·8 91·6 91·8 91·3 91·5 95·3 90·4 89·2 89·3 89·1 88·7 89·4 90·3 88·5	88.5 82.9 81.2 81.6 81.5 81.1 81.4 80.5 79.7 80.0 80.3 80.0 81.2 80.7 79.3	93 90 91 87 85 89 94 86 84 85 85 85 85 85 86 86	92 89 90 87 86 89 93 80 85 86 86 87 88	94 88 87 88 89 86 87 84 85 84 84 86 87	92 89 89 83 87 88 89 85 84 85 85 84 86 87	97 94 97 94 97 94 94 95 95 95	99 94 91 93 96 92 91 92 93 94 93 91 5	100·5 101 101 100·5 100 100 99·5 99·5 99·5	97.5 95.5 97 99 98 100 101 100 99	111 108 107 105 107 104 5 106 107 108 107	101* 100·5‡ 99·5*
2nd , , , , 26 5rd , , , , 26 5rd , , , , 26 1928 1st Qr. Av 26 2nd , , , 27 2nd , , , 27 3rd , , , 27 0CT 26 NOV 26 DEC 26 1929 JAN 26 APR 26 APR 26 MAR 26 JUNE 24 SEPT 22 DEC 22 DEC 22 JAN 22 T1930 JAN 22 FEB 22 MAR 24 AVG 24 SEPT 25 DEC 22 DEC 22 DEC 25 JAN 25 FEB 26 MAR	26·1 26·4 26·3 27·0 27·0 26·8 26·7 26·3 26·4 25·8 26·0 25·9 225·9 225·3 24·3	84.8 85.1 84.6 86.1 83.0 83.1 83.3 83.3 84.4 83.7 81.6	91.6 91.8 91.3 91.5 95.3 90.4 89.2 89.3 89.1 88.7 89.4 90.3 88.5 86.3	81·2 81·6 81·5 81·1 81·1 80·5 79·7 80·0 80·3 80·0 81·2 80·7 79·3	91 87 85 89 94 86 84 85 85 85 87 86 86	90 87 86 89 93 86 85 86 86 85 87 85	87 88 89 86 87 84 85 84 88 84 86 87	89 88 87 88 89 85 84 85 85 84 86 87	94 94 97 94 94 95 96 95	91 93 96 92 91 92 93 94 93	101 101 100·5 100 100 99·5 99·5 99·5	95.5 97 99 98 100 101 100 99	107 105 107 104 5 105 106 107 108 107	100·5‡
1st Qr. Av 26 2nd ,, ,, , , , , , , , , , , , , , , , ,	27·0 27·0 26·8 26·7 26·3 26·4 25·8 26·0 25·9 25·3 24·3	86:1 83:8 83:1 83:0 83:1 83:2 83:3 84:4 83:4 81:7 81:6	95·3 90·4 89·2 89·3 89·1 88·7 89·4 90·3 88·5 86·3	81.4 80.5 79.9 79.7 80.0 80.3 80.0 81.2 80.7 79.3	94 86 84 85 85 85 86 86	93 86 85 86 86 85 87 85	87 84 85 85 84 86 87	89 85 84 85 85 84 86 87	94 94 95 96 95 94 95	91 92 93 94 93 91.5	100 99·5 99·5 99·5 99·5	100 101 100 99 99	105 106 107 108 107	
NOV, 26 DBC. 26 1929 24 JAN. 26 FEB. 25 MAR. 26 APR. 25 MAY 21 JULY 24 AUG. 24 SEPT. 22 OCT. 22 NOV. 22 DEC. 22 JAN. 21 FEB. 26 MAR. 11 APR. 11	26·7 26·3 26·4 25·8 26·0 25·9 25·3 24·3	83·0 83·1 83·2 83·3 84·4 83·4 81·7 81·6	89·3 89·1 88·7 89·4 90·3 88·5 86·3	79.7 80.0 80.3 80.0 81.2 80.7 79.3	85 85 85 87 86 86	86 86 85 87 85	85 84 84 86 87	85 85 84 86 87	96 95 94 95	94 93 91·5	99·5 99·5 99·5	99 99	108 107 106	100
FEB. 26 MAR. 26 APR. 26 MAY 26 MAY 26 JUNE 24 JULY 26 AUG. 26 SEPT 22 OCT. 26 NOV 26 DEC. 26 1980 JAN. 26 FEB. 26 MAR. 16 APR. 16	25·8 26·0 25·9 25·3 24·3	83·3 84·4 83·4 81·7 81·6	89·4 90·3 88·5 86·3	80·0 81·2 80·7 79·3	87 86 86	87 85	86 87	86 87	95			99		
AUG. 24 SEPT 22 OCT 22 NOV 22 DEC 22 1930 JAN 22 FEB 22 MAR. 11 APR. 11		82.7		79.1	83.2	81·5 82·5	80·5 79·5	84 81 81	92·5 92 91·5 92	88 87·5 86 87·5	99·5 99·5 99·5 99·5	98.5 99.5 98.5 97.5 98.5	105 104 105 106	99.5
JAN 21 FEB 20 MAR 19 APR. 19	24·2 23·8 23·0 22·6 22·6	81.8 81.7 81.9 80.6 79.7	89·4 86·8 85·8 87·2 85·6 84·6	79·2 79·1 79·5 79·1 78·0 77·1	86 84·5 83 82·5 80 81	85 85 84 8 3 ·5 81·5 82	80·5 80 79·5 78 76 76	83 82 81 80 78 78 5	93 93·5 94·5 95·5 95·5 95	90 90·5 91·5 93·5 93·5 92	99·5 99·5 99 99 99 99	100 99.5 99.5 98 96 96	109 110 110 110 109.5 108	100
	21·1 20·2 19·2 19·5 19·2 16·3	78·8 76·9 74·9 74·4 73·3 72·6	83·4 81·0 77·7 77·6 76·5 76·6	76·3 74·7 73·4 72·6 71·5 70·4	80·5 79 76 77 73 72·5	80.5 79 75.5 76 72 71.5	74 73 72 70 69 66·5	77 75 74 73 71 69	94 92 90 89 88 88.5	90°5 88 84 82 81 83	99 98·5 98·5 98·5 98·25 98·25	95·2 93·9 92·6 92·5 90·8 88·5	106.5 105 103 104 103 101	97
AUG. 16 SEPT. 16 OCT. 16 NOV. 16 DEC. 11	16·0 16·3 16·8 16·7 16·7 15·3	71.7 70.9 69.5 68.0 67.4 65.5	76·4 75·9 74·4 72·9 72·5 69·8	69·2 68·2 67·0 65·4 64·7 63·3	72 69 ⁻ 5 70 70 68 67 ⁻ 5	71 70 70·5 71 69 68	65 64 62:5 61:5 61 59	68 66 65 65 64 62.5	89·5 89·5 89·5 89·5 83·5 87·5	84·5 84·5 84 84·5 83 81	98·25 98·25 98·25 98·25 98·25 98·25	85.6 85.6 85.8 84.2 82.0 79.9	99 99 100 99 97 94	94
FEB. 15 MAR. 15 APR. 15 MAY 15	13·7 12·3 13·8 13·0 13·1 12·3	64·3 63·9 63·7 63·6 62·8 62·1	68·1 67·2 66·8 67·7 68·1 68·1	62·4 62·1 62·1 61·5 60·1 59·1	67.5 65.5 66 66.5 65 65	67·5 65 65 65·5 64 64	58 59 58·5 57 55 56	61.5 61.5 61.5 61 59 59.5	87 86 84 84 83 84	80 79 76 76 75 76	98·25 97·75 97·75 97 97 97 97	78:5 77:0 75:9 74:7 72:7 71:4	91 87 86.5 85 83 81	88
AUG. 11 SEPT. 11 OCT. 11 NOV. 22 DEC. 26	13·2 12·6 13·0 17·3 21·3 20·0	61.5 59.9 59.7 62.8 64.0 63.7	65.8 64.8 64.9 67.8 69.0 67.8	59·2 57·3 57·0 60·2 61·4 61·5	63 62 63 63 63 65-5	62 62·5 63·5 63·5 64·5 66	54 53 55 56:5 57:5 58:5	57.5 57 58 59 60 61.5	83 83 83 83·5 84·5 84	75 75 75 76·5 77·5 77	97 963 964 964 964 96 <u>4</u> 96 <u>4</u>	71.4 71.6 70.4 69.7 69.6 67.6	81.5 82 82 81.5 80	
1932	19·9										964			
				SONAL V	ARIATIO	N REM	OVED.		• Dece	mber, 192	4.	† No	rent restr June ‡ D	iction.

PRICE OF SILVER-

Average (cash) price of bar silver for week ending 15th of month,—ECONOMIST.

STATIST (SAUERBECK) INDICES—

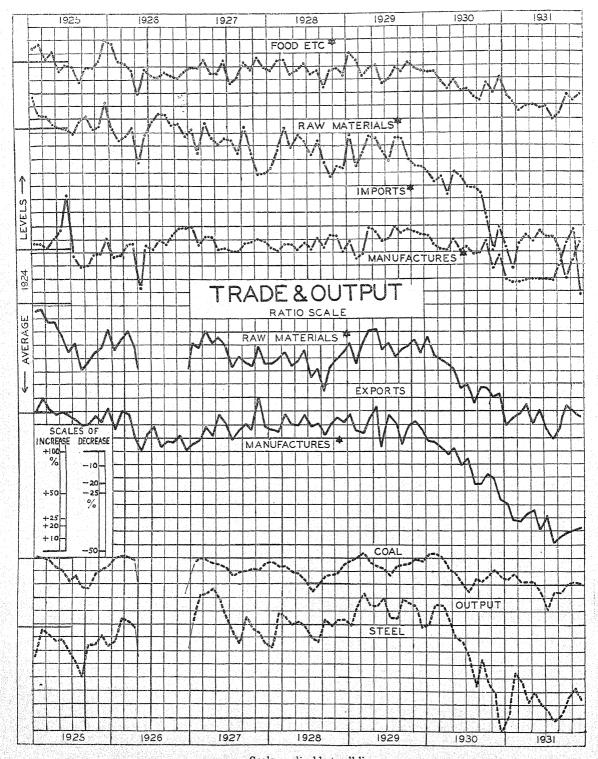
BOARD OF TRADE INDEX—Geometric Mean of Wholesale Prices (averages for month) of 150 commodities as percentage of 1924 average —BOARD OF TRADE JOURNAL. Average wholesale prices of 19 foodstuffs and 26 raw materials on last day of month, as percentage of average for 1924.—STATIST.

COST-OF-LIVING INDEX

Ministry of Labour's index showing movement since 1924 in cost of maintaining unchanged the standard of living prevalent in working-class households before the war. For 1st of month, but placed against previous month—e.g., reading for March 1st is shown against February—to facilitate comparison with "Statist" index. As above, for food only.

RETAIL FOOD PRICES-WAGES INDEX-

For description see Special Mem. No. 28.



Scale applicable to all lines.

* NORMAL SEASONAL CHANGE REMOVED.

TRADE AND OUTPUT.

Property of the Control of the Contr	TOTAL IMPORTS (Values).								EXPORTS OF U.K.						(Values).	***************************************	Oi	SHIP. B'LD'G			
	Foo Drink	and	Ra Mate		Ma:		To (inclu	ding	TOTAL. NET IMPORTS.	Fo Drink Toba	z and	Ra		Ma		Tota (includ	ling	Coal.	Pig Iron.	Steel.	Tonnage Com-
	Toba £Mn.	eco.	£Mn.	11015.	£Mn.	iies.	£Mn.	aneous	£Mn.	£Mn		Mater £Mn.	18.15.	factu £Mn.	res.	Miscella. £Mn.	neous)	Tons Mn.	Tons 000	Tons 000	menced: Tons 000
1924 Average	47:6	¥	33.3	*	25.0	¥	106.4	关	94-8	4.7	¥	8.9	*	51.6	英	66.8	*	21.2	520	641	263
1925 1stQr.Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	47·9 45.4 44·7 52·8	51·2 47·0 43·8 49·2	42·0 31·3 27·9 40·6	38·1 33·7 34·3 35·6	31.3	26·4 31·4 23·3 25·7	117·3 108·6 96·1 119·2	116·2 112·6 101·9 110·8	104·0 95·4 84·3 105·4	4·7 4·1 4·5 5·0	5·7 4·7 4·1 4·2	8·1 6·9 6·1 7·0	8·2 7·1 6·1 6·7	55·3 49·0 50·0 51·2	54·4 51·6 48·4 51·0	69·6 61·3 62·2 64·6	69·9 64·7 60·1 63·4	21·3 19·2 17·8 19·7	537 509 422 448	608 589 524 597	202 190 261 161
1926 1stQr.Av. 2nd ,, ,, 5rd ,, ,, 4th ,, ,,	46·1 40·8 43·8 46·2	49·1 42·3 43·0 42·9	28.4	31·8 30·6 36·1 33·5	24·2 26·3	25·1 24·2 26·5 29·2	107·1 93·7 101·0 112·5	106·4 97·4 106·0 106·1	94·8 83·9 92·4 101·6	4·2 3·6 4·6	5·1 4·2 3·9 4·0	6·7 3·8 2·0 3·2	6·9 4·0 2·0 3·2	50·9 40·9 45·0 42·5	50·2 43·1 43·7 42·3	63·2 49·5 52·6 52·0	63.5 52.5 50.8 51.1	21·5 —† —	499 207 13 38	665 245 56 161	193 168 68 152
1927 1stQr.Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	43.4	44°9 43°1	28.6	30.9	26·5 25·5	28·1 26·4 25·7 27·2	107·0 98·8 95·0 105·9	106:5 102:5 100:1 99:3	96·5 87·2 86·1 95·8	4.8.5.0 4.3.4.5	4·9 4·5 4·3	6·7 6·7 5·9 6·2	6·8 6·8 5·9 6·0	44·8 45·6 47·1 50·6	44·1 48·0 45·7 50·4	56.8 57.3 58.7 63.5	57·1 60·4 56·8 62·4	21·1 20·3 19·3 20·0	524 631 558 527	782 799 648 629	580 437 370 377
1928 1stQr.Av. 2nd ,, ,, 3rd ,, ,, OCT NOV	43·2 42·9 48·2	46.5 44.7 42.1 44.0 44.9	32·1 28·3 23·0 24·2 29·9	30·5 28·1 23·8	26.7 26.2 26.2 29.1 27.3	25:9 26:2 21:4 28:4 28:2	103·2 98·5 93·6 102·7 106·8	102·0 102·2 98·2 97·4 99·9	92·2 87·1 85·6 93·8 96·0	4·3 3·9 4·7 5·3 5·6	5·2 4·3 4·2 4·3	6·0 5·9 5·3 6·2 6·1	6.0 6.0 5.2 5.7 6.0	49·1 46·5 48·2 50·8 49·9	55·7 46·7 48·1	60·6 57·8 59·9 64·3 63·8	60·2 61·1 57·9 60·0 62·8	20·3 18·9 17·8 19·0 19·2	524 529 475 491 508	672 676 636 665 699	342 279 245
1929 JAN FEB MAR APR MAY JUNE	45·3 49·6 40·0 42·1 42·6 44·2	42.8	30·9 39·1 27·0 28·5	25·2 31·9 25·7 28·1 31·5 31·1	24.4	25·1 27·1 23·9 24·7 29·7	116·5 90·9 98·6 104·1 103·4 91·5	94·0 110·5 97·3 96·5 106·5 106·8 96·7	92·4 106·7 80·5 88·6 93·8 93·0 81·9	4·6 4·20 4·08 0·69 4·35 4·9	5.0 5.1 4.4 6.0 5.2 4.4	6·6 5·6 6·8 7·8 6·1	6·3 6·7 5·8 6·6 7·3 7·4 6·4	53.8 44.3 47.0 47.1 53.4 38.4	48.5 51.7 45.9 45.2 50.2 54.7	66·9 55·7 58·6 60·2 67·4 49·9	62.7 53.6 57.4 64.8 68.9 53.5	20·5° 21·0 21·5 22·2° 20·8 20·3° 19·9	509 520 533 571	673 775 841 773 773 812	} 362 } 428
JULY AUG SEPT OCT NOV DEC	42·2 45·7 45·1 51·2 48·5	41.6 45.1 43.9 46.8 45.0 44.0	22·9 24·7 24·2 27·3 30·0 31·2	31·1 30·9 26·8 25·7	27.4 29.5 28.4 30.2 28.2 27.8	28.6 29.5 29.0	93.6 101.0 98.4 110.3 108.2 106.4	96.6 107.3 104.1 104.7 101.2 98.9	85.6 92.0 91.6 101.1 100.0 98.6	4·7 4·5 4·8 5·4 5·7 4·9	4·4 4·1 4·3 4·4 4·9	6·9 6·0 6·5 7·1 6·9 6·2	6.7 6.1 6.4 6.5 6.8 6.2	53·2 50·8 42·2 50·3 48·6 44·6	51·1 48·8 41·7 47·7 49·0	66.5 63.0 55.1 64.6 63.1	63·9 60·7 53·9 60·3 62·1 60·0	18.9 20.3° 20.4 20.6 21.3 20.9*	620 622 589	708 705 811	} 360 } 499
1930 JAN FEB MAR APR MAY JUNE	36·7 39·6	43.7 43.8 40.8 38.7 41.1 38.2	30:1 24:0 24:1 20:7 23:1 20:4	23·8 21·0 24·6		25·3 27·4	101:8 88:2 93:4 83:9 91:0 83:4	97·3 94·4 91·4 85·9 9 3 ·7 87·8	93·7 79·6 85·8 76·1 82·0 75·6	4·6 3·7 4·0 3·6 3·8 3·2	5.5 4.7 4.7 4.3 3.6	6·9 5·8 6·0 5·4 5·8 4·7	7·0 6·1 6·0 5·8 5·6 4·9	44·7 41·2 42·5 36·7 39·8 33·8	42·6 40·9 39·1 40·8	51·9 53·9 46·9	57-5 54-6 53-0 50-5 52-3 45-8	22:1 22:1 21:5 19:9° 19:3 18:0°	555	679 776 773 696 621 600	} 427 } 230
JULY AUG SEPT OCT NOV DEC	. 37·2 . 36·6 . 44·1 . 40·6	\$8.6 \$6.7 \$5.7 40.3 \$7.7 41.9	16.5	22.0	24·2 24·6 27·7 21·6	24.8 27.1	85·2 79·9 78·6 90·9 79·4 89·6	87.6 84.3 82.5 86.2 74.9 83.9	83·7 72·6	4·4 4·0 4·2 4·4 4·8 3·5	4·1 3·6 3·6 3·5 3·5 3·5	5·2 4·4 5·0 5·3 4·7 4·7	5.0 4.4 4.9 4.9 4.6 4.7	35.9	31.8 31.7 34.0	42:8 42:7 46:9 44:1	48·6 41·1 41·7 43·7 43·2 39·5	16·9 18·6° 18·2 18·7 19·8 18·7*	439 376 397 375 358 317	441 532 451 424	161
1931 JAN FEB MAR APR MAY JUNE	30·0 32·6 32·5 33·3	33.2 34.2 34.5	13·3 15·1 15·5	14:6 12:6 14:9 15:8 15:5 16:3	19·5 22·3 20·9 21·0	20.7 20.2 20.3 20.6 20.7	75.6 63.6 70.7 70.0 69.6 68.6	73:3 68:9 69:0 71:7 71:4 72:2	57·8 65·2 63·4 63·9	3·7 2·8 3·0 2·9 2·8 2·6	4.46 3.5 3.5 3.9	4·1 4·1 4·0	3·8 4·0 4·1 4·4 3·8 4·2	24·0 25·6 24·3 26·0	27.6 24.9 24.6 25.9 26.6 23.2	32.5	37·3 33·7 33·5 35·0 34·7 31·4	18·2° 18·2	305 320 323 302 313 302	486 458 397 428	33 23
JULY AUG SEPT OCT NOV DEC	31.8 33.6 40.8 38.6	31·4 32·7 37·3 35·9 37·5	13.6 12.5 11.2 11.9 15.3 18.5	15.7 15.7 14.3 11.7 13.2 5 15.1	20·7 20·1 22·6 27·2 28·7 18·2	20.7 20.5 22.8 26.6 29.5 18.7		71:7 68:5 70:7 76:5 79:2 71:9	65·2 61·4 64·6 75·4 78·3	2:7 2:6 2:7 3:4 3:4 2:9	2·5 2·4 2·3 2·7 2·6	3·8 3·4 3·7 4·3 4·1	3·7 3·4 3·7 4·0 4·1	22·0 22·2 24·0 22·9	25·4 21·1 22·0 22·7 23·1 23·5	29·1 29·8 32·8 31·9	32:9 28:0 29:2 30:6 31:2 31:2	16·8 17·9 18·1	29	37' 34' 36' 7 41 7 43 9 40	7 9 7 1 1 9 } 105

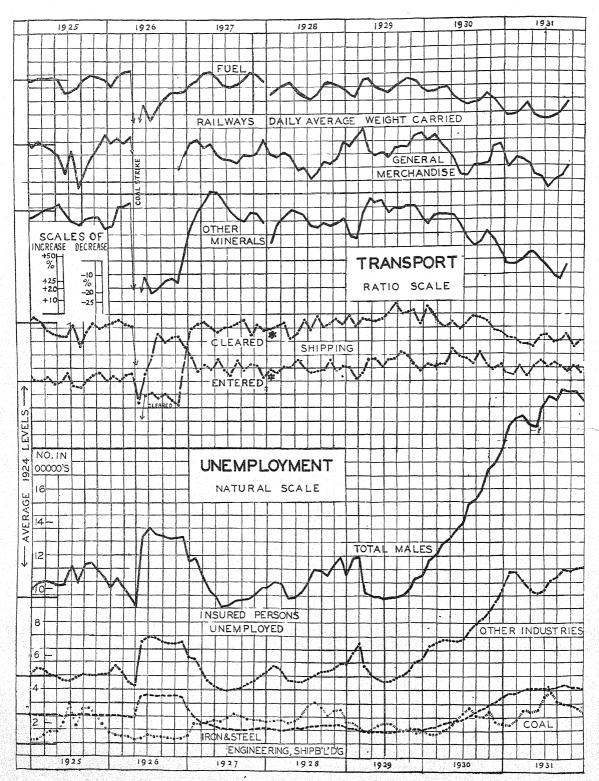
IMPORTS & EXPORTS-

Declared values of imports (c.i.f.) into U.K., and exports (f.o.b.) of U.K. produce and manufacture. Net imports—Total imports less exports of imported goods.—MONTHLY ACCOUNTS OF TRADE & NAVIGATION. Total for 4 weeks ending approximately at end of month—BOARD OF TRADE JOURNAL. Output for standard four-week month, based upon monthly figures issued by the NATIONAL FEDERATION OF IRON AND STEEL MANUFACTURERS.
Tonnage of ships over 100 tons (excluding warships) commenced during the quarter.—LLOYD'S REGISTER OF SHIPPING.

⁵ 4 Weeks, excluding holiday week.

* Excludes Christmas week, but includes New Year

* NORMAL SEASONAL CHANGE REMOVED.



* NORMAL SEASONAL CHANGE REMOVED.

TRANSPORT.

UNEMPLOYMENT.

		SHIPPING.	NOW INC. STOCK COMPANY			RAIL	WAYS			A COMMUNICATION TO					EMPL h Irela			
	Leith Largoes).						100		Total.	Coal.	Steel.	Male		ng and uction.	n and	ner tries.	Fem.	Cotton and Wool.
	British 0000 ton-		Time % Charter Rates.	% Freight Rates.	General	Inel Finel 100 ton	. Other Mineral	All Goods. £ Mn	000 To	ව 000	S Iron &	S Engineering	S Shipbuilding	S Building and Construction.	Cotton a Wool	S Sother O Industries.	000 L	OO Cotto
1924 Average 1925	461 *	544 🖈	100	100	544	1743	551	8.89	941	72	52	116	78	99	35	344	263	62
1st Qr. Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	417 464 465 463 489 450 479 472	507 545 516 500 523 502 531 532	105 92 89 94	95 82 78 87	544 514 528 551	1733 1517 1491 1713	539 538 517 512	8·88 8·31 8·53 8·89	1034 1058 1107 1063	125 219 250 191	59 62 64 58	100 95 96 95	83 81 85 90	108 77 83 110	27 31 39 26	371 351 355 345	286 273 290 241	45 60 73 42
1926 1st Qr. Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	422 469 453 451 644 594 618 606	507 545 364 \$63 343 330 352 354	91 103 138	79 78 98 138	546 429 445 4 96	1778 667 336 1056	544 376 331 365	9·10 5·81 5·64 7·92	1003 1186 1314 1259	119 109 108 111	50 108 132 108	97 121 135 134	88 90 96 100	117 94 109 139	31 59 69 49	348 454 511 460	243 335 376 307	49 106 130 86
1927 1st Qr. Av 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	447 <i>515</i> 511 <i>509</i> 542 5 00 503 <i>496</i>	498 536 536 520 566 544 517 518	112 113 102 102	104 95 87 93	543 532 536 550	1754 1605 1595 1672	542 598 534 524	9·42 9·00 9·07 9·11	1032 913 929 990	201 220 243 217	41 39 41 49	97 75 67 69	73 54 48 46	134 82 92 147	29 24 29 31	356 296 295 303	236 175 194 196	46 39 48 49
1928 1st Qr. Av 2nd ,, ,, 3rd ,, ,,	449 494 514 512 531 489	502 530 535 519 564 542	93 90 93	84 83 86	521 496 501	1661 1478 1460	506 536 505	8·95 8·34 8·37	1004 992 1108	208 250 290	44 45 50	67 67 70	44 51 59	152 109 119	27 30 42	323 312 346	201 197 261	43 54 81
OCT NOV DEC	563 <i>530</i> 481 <i>489</i> 506 <i>508</i>	570 <i>540</i> 549 <i>558</i> 516 <i>541</i>	103 116 119	92 98 98	574 540 475	1636 1629 1625	537 528 483	9·34 8·98 8·19	1148 1189 1088	279 281 212	47 47 42	70 74 70	67 66 61	141 159 163	39 37 34	354 367 353	255 264 246	71 66 60
JAN FEB MAR APRIL MAY JUNE	. 457 488 516 537 538 538	541 574 462 535 552 559 551 558 601 554 575 563	113 109 108 108 108 108	96 95 89 88 86 81	522 448 515 532 525 484	1613 1646	584 596	9·13 8·26 9·27 8·95 8·94 8·39	1189 1197 980 960 956 942	212 170 147 175 198 203	43 42 36 37 37 37	76 72 64 64 65 61	56 52 50 46 46 46	206 252 141 116 104 100	37 38 34 39 37 38	388 393 350 332 325 315	277 257 224 222 221 221	63 60 56 63 69 72
JULY AUG SEPT OCT, NOV DEC	. 588 539 589 562 583 549 513 521	618 585 648 625 596 580 622 589 586 595 517 542	109 116 119 104 96 88	83 83 84 77 77 77	524 513 523 579 536 477	1688 1660 1811 1845	560 548 606 573	9·05 8·82 8·88 9·69 9·33 8·24	947 951 961 1005 1061 1075	202 173 162 165 153 156	41 40 39 41 47 45	61 66 68 68 70 70	47 49 51 51 49 48	103 108 121 143 172 181		314 331 335 339 356 359	231 247 243 249 265 269	78 78 69 69 69 73
JAN FEB MAR APRIL MAY JUNE	. 427 513 . 484 517 . 498 518 . 579 579	581 616 496 574 533 642 525 632 598 551 534 523	83 84 84 86 86 86	66 64 61 66 58 62	527 468 512 484 501 436	1743 1755 1563 1621	5 503 5 540 5 506 465	9·13 8·41 8·92 8·19 8·65 7·27	1173 1209 1267 1301 1357 1396	138 142 155 177 235 254	48 47 55 64 63 63	79 85 91 98 100 107	49 50 55 55 58 62	197 195 177 160 147 147	67 71 85	411 425 456 465 461 469	348 374 427 460 499 515	104 121 135 151 185 202
JULY AUG SEPT OCT NOV DEC	564 517 588 561 557 624 496 504	571 541 589 567 579 563 581 551 511 519 489 513	71 71 79 — 64	70 68 62 68	483 440 474 518 449 438	1434 1529	413 9 456 3 512 0 439	8:20 7:54 8:17 8:76 8:18 8:11	1519 1546 1605 1735 1771 1847	252 246 282 225	71 80 83 91 98 109	114 125 137 151 158 173	65 70 76 82 86 92	160 166 178 200 232 246	105 103 96 96	532 552 581 610		217 207 197 192
JAN FEB: MAR APRIL MAY JUNE	401 481 478 510 459 478 511 511	469 497 423 490 466 473 465 471 504 464 507 497	59 54 56	65 66 67 70	39	6 132	1 367 1 417 0 401 4 419	7·99 7·37 8·01 7·49 7·05 7·38	1972 2017 2028 1968 1957 2068	239 292 278 288	100	194 196	107 108 110	220	104 7 90 0 93 7 92	714 701 6 683 2 677	380 63 62 62	202 3 181 5 184 1 185
JULY AUG SEPT OCT NOV DEC	568 <i>521</i> 535 <i>510</i> 522 <i>491</i> 498 <i>507</i>	536 507 502 483 503 489 538 509 460 467 460 488	55 55 77 71	63 62 7 73 L 74 L 72	47	5 127 0 139 9 153	1 350 9 366 1 415	7.63	216 213	3 328 3 316 3 302 7 283 2 257	102 105 95 97 96	203 210 205 205 197	114 113 115 117	24. 26 30 32	5 116 4 116 2 8 8 7	72: 1 73: 1 72: 2 72:	2 69 3 70 6 62 1 56	5 219 7 222

Excluding any disqualified for benefit by trade dispute.

* NORMAL SEASONAL CHANGE REMOVED. § Excludes Commerce, etc.

TRANSPORT:
SHIPPING—ENTERED
AND CLEARED SHIPPING FREIGHTS-RAILWAY TRAFFIC— WEIGHT RECEIPTS

Tonnage of British and Foreign vessels entering and leaving British ports with cargoes during month.—BOARD OF TRADE MONTHLY ACCOUNTS OF TRADE & NAGIVATION. Chamber of Shipping index numbers as published by "The Statist,"-PREPARED BY DR. ISSERLIS.

Tonnage of goods carried on the Railways of Great Britain during the month, excluding free-hauled, Monthly Receipts for goods traffic, excluding cost of collection and delivery till January, 1923, then excluding receipts for collection and delivery.—MINISTRY OF TRANSPORT. Number of books lodged at Labour Exchange on or about 25th of month.

MINISTRY OF LABOUR GAZETTE.

UNEMPLOYMENT-INSURED PERSONS-

FOREIGN EXCHANGES.

	ing Parameter Colores and Colores		arranganga Hering a maya Pilinian agusu wa wal	A Committee Market and Annie of Annie o	AV	ERAGE (OF DAIL	Y RATES		anne ann an Aire ann an Ai		ATTER DE TOTO DE SERVICIO	CHARLES THE STATE OF
	Paris f. to £	Milan l. to £	Berlin M. to £	Amster- dam fl. to £	Prague kr. to £	Berne f. to £	Stock- holm kr. to £	NewYork \$ to £	Buenos Aires d. to \$	Rio de Janeiro d. per mil.	Bombay d.perrup.	Hong- kong d. per \$	Kobe d.peryen
Parity	124-21†	92·46§	20:43	12.107	24.02	25.2215	18.159	4.866	47.58	27	18		24.58
1927 JAN FEB APRIL MAY JUNE JULY AUG SEPT	123.63 124.01 123.98 123.97 123.97 124.00 124.01 124.00	111·6 112·3 107·7 97·05 89·96 86·94 89·32 89·35	20·454 20·468 20·468 20·490 20·501 20·494 20·450 20·431 20·433	For 191 12:135 12:123 12:130 12:140 12:136 12:124 12:119 12:129 12:135	163.8 163.7 163.9 164.0 163.9 163.9 164.0 164.0	25·176 25·220 25·235 25·251 25·253 25·244 25·220 25·212 25·222	18:171 18:174 18:144 18:135 18:157 18:128 18:128 18:116 18:094	4:853 4:850 4:850 4:857 4:857 4:857 4:856 4:8552 4:8606 4:8634	46:40 46:93 47:51 47:55 47:56 47:69 47:76 47:85 47:95	5·80 5·87 5·83 5·80 5·84 5·83 5·87 5·87	18.03 17.97 17.96 17.88 17.93 17.91 17.87 17.87	24 · 17 24 · 79 24 · 01 24 · 50 24 · 32 24 · 21 24 · 15 23 · 68 23 · 83	24·15 24·20 24·31 23·90 23·26 23·09 23·31 23·37 23·14
OCT NOV DEC	124.03 124.00 124.00	89·12 89·47 90·69	20·408 20·422 20·435	12·116 12·075 12·073	164·3 164·4 164·7	25·249 25·272 25·277	18:084 18:098 18:080	4·8700 4·8740 4·8825	47·90 47·83 47·82	5·91 5·89 5·91	17·97 17·99 18·10	23·95 24·43 24·63	22·96 22·65 22·71
JAN. FEB. MAR. APRIL. MAY JUNE JULY AUG. SEPT.	124·00 124·02 124·02 124·01 124·01 124·16 124·18 124·23 124·18	92·17 92·07 92·37 92·55 92·65 92·76 92·81 92·74 92·74	20·461 20·431 20·412 20·412 20·399 20·417 20·364 20·364	12·086 12·109 12·124 12·110 12·093 12·098 12·084 12·101 12·097	164·5 164·5 164·64 164·71 164·72 164·67 164·13 163·76 163·65	25·302 25·336 25·339 25·332 25·327 25·317 25·255 25·211 25·200	18·138 18·161 18·180 18·183 18·193 18·161 18·134 18·130	4·8758 4·8750 4·8801 4·8821 4·8817 4·8805 4·8642 4·8538 4·8508	47:83 47:88 47:86 47:81 47:80 47:66 47:43 47:41 47:34	5.92 5.92 5.93 5.92 5.92 5.89 5.90 5.91 5.91	18·10 18·00 18·00 18·00 18·01 17·95 17·91 17·95 18·06	24 69 24 44 24 40 24 42 25 05 24 66 24 54 24 50 24 36	23·09 23·08 23·20 23·47 22·94 22·95 22·65 22·29 22·69
OCT NOV DEC	124 11	92·61 92·57 92·66	20·363 20·354 20·360	12.096 12.082 12.078	163·63 163·64 163·72	25·200 25·190 25·178	18·138 18·143 18·132	4·8498 4·8495 4·8525	47·34 47·47 47·36	5·92 5·91 5·89	18:06 18:07 18:062	24·55 24·59 24·51	22·88 22·96 22·75
JAN FEB MAR APRIL MAY JUNE	124·08 124·23 124·24 124·21 124·14 123·99	92·67 92·70 92·68 92·70 92·65 92·67	20·402 20·447 20·455 20·475 20·415 20·335	12·091 12·115 12·117 12·090 12·067 12·074	163·83 163·84 163·85 163·93 163·85 163·73	25·207 25·231 25·229 25·214 25·190 25·198	18·138 18·155 18·170 18·173 18·154 18·113	4·8503 4·8525 4·8529 4·8534 4·8510 4·8485	47·42 47·39 47·28 47·28 47·24 47·17	5·91 5·90 5·86 5·87 5·87	18.056 18.013 18.008 17.965 17.912 17.854	24·49 24·08 24·08 23·92 23·68 23·66	22·56 22·38 22·05 22·08 22·11 21·77
JULY AUG. SEPT. OCT NOV. DEC. 1930	123·87 123·89 123·85 123·92	92·74 92·74 92·69 93·00 93·16 93·24	20·359 20·360 20·361 20·397 20·389 20·386	12:086 12:103 12:093 12:098 12:087 12:096	163·90 163·83 163·76 164·41 164·57 164·47	25·221 25·203 25·164 25·176 25·151 25·109	18·100 18·101 18·101 18·141 18·149 18·102	4·8511 4·8488 4·8479 4·8695 4·8777 4·8817	47:23 47:21 47:20 46:82 46:26 45:86	5.87 5.88 5.87 5.86 5.80 5.56	17:818 17:830 17:869 17:871 17:886 17:936	23·89 23·87 23·73 21·73 21·18 20·52	22·54 23·13 23·42 23·58 24·01 24·10
JAN FEB MAR. APRIL MAY JUNE	124·16 124·26 124·10 123·90 123·81	93·05 92·87 92·84 92·78 92·71 92·76	20·387 20·366 20·382 20·375 20·365 20·372	12·102 12·123 12·125 12·097 12·081 12·086	164·58 164·26 164·11 164·16 163·97 163·85	25·163 25·198 25·136 25·094 25·108 25·084	18·136 18·124 18·106 18·092 18·111 18·095	4·8695 4·8621 4·8632 4·8634 4·8599 4·8588	45·12 42·70 42·24 43·61 43·02 41·67	5·52 5·55 5·72 5·81 5·86 5·63	17:931 17:907 17:862 17:860 17:835 17:816	19·47 18·66 18·24 18·40 17·67 15·45	24·23 24·28 24·38 24·38 24·39 24·41
JULY AUG SEPT OCT NOV DEC	123·82 123·77 123·85 123·65 123·60	92.88 92.98 92.83 92.80 92.78 92.72	20·383 20·387 20·404 20·412 20·379 20·369	12:092 12:089 12:067 12:058 12:068 12:061	164·05 164·17 163·82 163·79 163·79 163·70	25·044 25·047 25·049 25·020 25·049 25·040	18·097 18·112 18·093 18·096 18·101 18·101	4:8652 4:8708 4:8614 4:8589 4:8566 4:8567	40.84 40.67 40.37 38.50 38.65 37.42	5·34 4·87 4·98 1 4·85 4·73	17.821 17.790 17.788 17.818 17.789 17.779	15·41 15·88 15·90 15·81 15·55 13·91	24·39 24·37 24·41 24·51 24·51 24·53
JAN FEB MAR APRIL MAY JUNE	124·34 124·24	92·74 92·81 92·74 92·82 92·91 92·94	20·418 20·438 20·406 20·408 20·434 20·496	12·066 12·103 12·119 12·106 12·103 12·088	163·90 164·08 163·95 164·06 164·11 164·18	25·075 25·181 25·246 25·235 25.219 25·081	18:136 18:147 18:142 18:148 18:143 18:148	4:8550 4:8565 4:8585 4:8600 4:8641 4:8650	34·48 35·63 38·60 37·77 34·87 34·70	4·45 4·24 3·87 3·62 3.33 3·71	17.782 17.781 17.849 17.845 17.856 17.777	12.06 11.26 12.08 11.99 11.82 11.77	24·48 24·41 24·41 24·41 24·41 24·39
JULY AUG SEPT OCT NOV Week ending	115·64 98·68 94·83	92.86 92.87 88.02 75.37 72.14	20.969†1 20.573 19.361 16.702 15.717	12·046 11·34 9·62 9·26	163·97 163·96 132·72 130·7 125·2	24·995 24·922 21·74 19·83 19·09	18·146 18·158 17·51 16·81 17·98	4:8566 4:8573 4:542 3:886 3:719	34.61 31.96 32.08 32.03 37.70	3.58 3·16 3·16 3·49 3·96	17:811 17:769 17:765* 18:880 18:136	12:34 11:81 12:35 15:06 16:74	24·40 24·42 26·19 30·0 31·81
Dec. 5 ,, 12 ,, 19 ,, 24 1932	84.05	65:40 64:25 67:06 66:89	14:26 14:07 14:42 14:34	8·34 8·02 8·51 8·48	112·9 111·2 115·4 114·6	17·25 16·93 17·55 17·45	18.07 18.13 17.94 17.98	3·356 3·297 3·428 3·412	40.35 40.99 40.87 41.09	4·23 4·34 4·31 4·24	18:094 18:112 18:148 18:148	16.92 17.81 17.80 17.70	35·41 35·42 29·33 28·39
Jan. 2 ,, 9 ,, 16	86·80 86·22 87·56	67:15 66:04 67:93	14:33 14:27 14:50	8·53 8·43 8·56	114·7 114·1 116·0	17:49 17:33 17:62	17:92 17:75 18:00	3·408 3·382 3·436	40.76 40.67 39.79	4·25 4·37 4·31	18·156 18·130 18·128	17:53 17:42 17:43	25·17 25·20 25·53

ROYAL ECONOMIC SOCIETY

ISSUED BY ARRANGEMENT WITH THE LONDON AND CAMBRIDGE ECONOMIC SERVICE

MEMORANDUM No. 34

STUDIES IN THE ARTIFICIAL CONTROL OF RAW MATERIAL SUPPLIES

J. W. F. ROWE

No. 3. BRAZILIAN COFFEE

February, 1932

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STUDIES IN THE ARTIFICIAL CONTROL OF RAW MATERIAL SUPPLIES

J. W. F. ROWE

No. 3. BRAZILIAN COFFEE

Previous Memoranda on the Artificial Control of Raw Material Supplies

No. 1 Sugar No. 2 Rubber

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SOME EXPLANATORY NOTES AND DEFINITIONS

I. PRODUCTION

The production of Brazilian coffee is reckoned in bags of 60 kilos (approximately The picking of the crop begins 132 lbs.). at the end of April, but the coffee does not begin to reach the ports until July, and the market year of the crop is therefore taken as beginning on July 1st, i.e. the crop which began to be picked in April 1931 is spoken of as the crop of 1931-32 by all parties concerned except the planter, who naturally calls it the crop of 1931, since for him the picking is the end and not the beginning. In this Memorandum, for simplicity's sake the market year is referred to in all cases, and any planters who may chance to read it should carefully note this difference as compared with their own normal methods of reckoning. Thus the flowering of the 1931-32 crop means here the flowering in September 1930 of the crop which will begin to be picked in April 1931, and which will be marketed from July 1st, 1931, to June 30th, 1932. Statistics of the size of crops refer to the amount of coffee available for export from Brazil or other producing countries, and not to the total coffee actually produced for sale at home as well as abroad, since the home consumption cannot be accurately ascertained.

II. CONSUMPTION

Throughout this Memorandum, consumption means the statistical consumption, *i.e.* imports modified by changes in recorded stocks. Since the recorded stocks do not include stocks in the hands of roasters or retailers, this statistical consumption corresponds to what may be termed market absorption, *i.e.* the movement of supplies from visibility into invisibility, but may differ considerably from actual physical consumption; where reference is made to this last, it is always thus described.

III. PRICES

The general price level of Brazilian coffee is set by the Santos spot market, and the markets of New York, London, Havre, Hamburg and

other consuming centres reflect this price level in terms of local currencies instead of milreis. with the addition of export charges and freight. But since Brazil has an inconvertible paper currency, the exchange value of the milreis is not constant in terms of gold, and therefore the value of coffee in terms of other commodities, i.e. the gold price of coffee, is best reckoned by reference to the New York price of cents per lb., for variations in export charges and freight do not make an appreciable difference over short periods for such a small quan-Throughout this Memorandum, therefore, the world price of coffee is considered in terms of the New York spot price of Santos Grade 4, since that grade is considered to be representative, and therefore also forms the basis of future contracts in the terminal market. As regards future contracts, the New York market may be said to set the future price. and the Santos terminal market normally reflects the New York future quotations in terms of milreis, i.e. its function is to include the expected course of exchange.

For most purposes it is, of course, the gold price of coffee which is important, and therefore the New York spot price is the appropriate measurement of price fluctuations. But from the planter's point of view it is the milreis price which really matters, since his costs are in milreis, and such large items in his costs as wages, freight and the prices of home-produced materials are slow to reflect changes in the external value of the milreis. (As regards his profits, however, the planter is much more directly affected by the rate of exchange, since much of these profits will be spent on imported goods, on trips abroad, and so on.) Movements in the gold price may therefore have very different effects on the planter's position according as to whether the movements are due to variations in exchange or variations in the milreis price. The matter is further examined in the text below, and all that is necessary here is to put the reader on his guard.

Weights and Currency Units.

(a) I bag or sack of coffee weighs 60 kilos (132 lbs.).

(b) I arroba of coffee = 15 kilos (I bag therefore contains 4 arrobas).

(c) Currency units. 1000 reis = 1 milreis, and 1000 milreis = 1 conto (de reis). The notation of 1 milreis is 1\$000.

The nominal gold parity of the milreis was 27 pence until 1926 when an attempt was made to stabilise on the basis of 5.89 pence.

BRAZILIAN COFFEE

INTRODUCTION AND SUMMARY

RAZILIAN coffee has been subjected to artificial control of a more thorough, prolonged and deliberate character than any other raw material of major importance. Broadly speaking, artificial control has now been exercised almost continuously for thirty years, and after a number of ad hoc temporary experiments the Government of São Paulo and the producers in that State were so convinced of its benefits and its practicability that in 1924 control was established on a permanent basis. In due course all the other coffeeproducing States were persuaded to follow this example, while the Federal Government gave its general approval and did anything required to facilitate the co-operation of the states. For a short time all went well, but by 1929 a combination of adverse circumstances and bad mistakes of policy resulted in a partial break-down of control. All hopes of success as measured by the maintenance of profitable prices disappeared. But control was not abandoned: on the contrary, Brazil was determined to avoid a return to laissez-faire at any cost, and by adapting the aims and methods of control to the altered conditions of the situation, she has now more or less assured a gradual and orderly process of liquidation. In Brazil's estimation this is far more desirable than the complete economic collapse which under laissezfaire must necessarily have preceded recovery, even if that recovery might prove to be more speedy than it probably will be under control. Despite all their troubles to-day and the virtual certainty of worse troubles ahead, it is noteworthy that at least in the State of São Paulo, whose experience of control has been more prolonged and more thorough than that of any other coffee state, the necessity and desirability of control in some permanent, definite, and fairly detailed form is not questioned. Even if the present crisis were passed, and equi-

librium once more in sight, not a hand would be raised by the planters in favour of a return to laissez-faire. Paulista belief and confidence in conscious control remains unshaken, though feeling runs high concerning the errors of omission and commission which have been so largely responsible for bringing the industry and the country into its present plight. But Brazil is determined to learn the technique of artificial control, and remains undaunted, if now most perturbed, at the price which must be paid for the necessary experience.

This unshaken belief in artificial control

stands in marked contrast to the present attitude of most other groups of raw material producers. It is true that control schemes are to-day almost as, if not more, numerous than ever, but in nearly all cases artificial control is looked upon as a temporary measure, necessary to combat the effects of the world trade depression, but not in itself constituting the only assured hope of reasonable prosperity in the future, as is the belief of the Brazilian coffee producers. If prices began to rise, and the return of prosperity seemed in sight, we should not for a time hear much more of artificial control in industries such as rubber, cotton, wheat, or even probably sugar, copper, and Brazil, or at any rate São Paulo would, however, regard such a turn in events as the moment to restore the defence of coffee to its original purpose of making the most of prosperity rather than of combating depression. The explanation of this divergence of views lies, of course, in the special economic characteristics of Brazilian coffee production, chief amongst which is the enormous variation in crop yields, and in the very inelastic nature of the demand. The primary object of artificial control is to remedy the results of these crop variations on the coffee producer's income and expenditure: it is not to meet fluctuations in consumption due to world trade conditions, or to minimise the results of the creation of capacity in excess of normal requirements, as is the case in most other industries. We are badly in need of a popular term to designate that form of artificial control which seeks to average out over a period the crop yields of a capacity, which at average or normal yield equals the normal demand, i.e. of a capacity correct in amount on the basis of its normal yield. "Restriction" should be reserved for those forms of control in which definite restriction of output is involved, and not merely a temporary withholding of existing available supplies. "Valorisation" is, of course, the term most commonly used, especially with reference to Brazilian coffee, but if the control becomes permanent, this implies the raising of price above the normal long-period equilibrium level: hence though applicable to Brazil's early experiments, which sought to raise the price from a sub-normal level, it ceased to be so when control was placed on a permanent basis. Incidentally it may be observed that valorisation is a term just as applicable to all ordinary restriction schemes. As valorisation logically came to imply an attempt at monopolistic prices, Brazilians ceased to use it, and adopted the phrase "coffee defence." But this carries no special reference to any particular kind of control, any more than does "organised marketing," which would be just as suitable. It would certainly add to clarity of thought on the subject if some distinctive term were sanctioned by general usage.* Meantime, however, it would be pedantic to eschew the phrase valorisation, for this has become so closely identified with Brazilian coffee control as to be almost exclusive in its reference and meaning. The only practical necessity is to realise that valorisation here has little reference to prices: at the most it implies the prevention of a temporary fall in price which would, if it occurred, be balanced by a temporary rise later. This regularisation of supplies used to be performed by merchants and speculators, and the producer footed the bill, at least in the short-period. When the producer takes over this function, he hopes to be able to perform it more cheaply, and thereby to increase or valorise his income. By coffee defence, Brazilians mean the neutralisation of the influence of crop variations on the shortperiod prices received by the producer: there has never been any intention of trying to raise the long-period equilibrium price paid by the

consumer, nor have any steps ever been taken towards that end. This is not to deny that Brazil did, in fact, blunder into a policy which temporarily raised the consumer's price far above what it ought to have been; but the point is that, in doing so, Brazil stepped into the shoes of monopoly quite unconsciously, and was therefore most surprised when retri-

bution swiftly followed.

The gospel of coffee defence or valorisation becomes more intelligible after a consideration of the nature of coffee crop variations, and of what happens under laissez-faire. In the first place, it should be noted that a coffee tree in Brazil does not bear an appreciable crop until the fourth or fifth year after planting: there is therefore no possibility of correcting a surplus or deficiency of supplies by a rapid adjustment of capacity, any more than there is in the case of rubber. The yield of coffee trees, however. unlike that of rubber trees, is greatly influenced by the weather. A concatenation of specially favourable weather conditions, other things being equal, produces a bumper crop, and after that other things do not remain unchanged. For the bumper crop exhausts the trees, and is always followed by a short crop, while it usually takes another one or two seasons before the trees have fully recovered their strength and become capable of bearing a normal crop. If the weather continues favourable, the period of convalescence will be shorter than if the weather is adverse. Sooner or later the weather becomes specially favourable again, and there is another bumper crop, initiating another crop cycle. As compared with other crops greatly under the influence of the weather, the important peculiarity is the cycle of potential productivity which exists so to speak, in the coffee trees themselves. Thus the weather alone cannot produce a bumper crop: even if the best possible weather continued for a year after a bumper crop, there could not be another bumper crop because the trees would not be physically capable of such productivity: conversely, if the trees are in good heart, then the bumper crop must wait upon the weather: good weather might result in a very quick recovery of potential productivity after a bumper crop, but the next bumper crop might be delayed if the weather then turned unfavourable, and the trees would not even give normal yields. It is true, of course, that a bumper crop of cotton or wheat, for example, exhausts the land more than a small crop, but the degree of such exhaustion is slight, and if very favourable weather is enjoyed for two successive seasons, there will be two large crops. The yield of cotton or wheat therefore

^{*} Regularisation of supply is a possibility, but this is sometimes used for the even flow of a crop month by month over the crop year.

varies more or less directly with the weather: their crop cycles are really weather cycles. But with coffee there are two cycles: when both happen to be adverse, i.e. bad weather in the year after a very big bumper crop which has greatly exhausted the trees, there is an exceedingly short crop, and when both cycles intersect favourably, i.e. specially good weather when the trees are completely recovered from a bumper crop and in thoroughly sound condition, there is an exceedingly big crop. Now we still know very little about weather cycles, but it should be observed that the cycle of potential productivity is in itself simple, regular, and of short duration. In the second season after a bumper crop, we know that the potential productivity of the trees is on the up-grade: this will counteract the effects of bad weather. but the odds are very heavy against good weather resulting in a bumper crop. odds are much smaller in the next season, while if the weather has been favourable and continues so, the odds turn in favour of a bumper crop from the fourth year onwards. In other words, the regularity of the potential productivity cycle gives some degree of regularity to the combined effect of itself and the weather cycle, which alone would be far more baffling. Whatever the weather, there is the tendency towards a crop cycle of comparatively short duration: a large part of the surplus of a bumper crop will almost certainly be required the very next year, while the odds are in favour of the remainder being required during the next two years or so, though the magnitude of these odds depends upon the weather. This is a great deal more than can be said, for example, of wheat or cotton: on the other hand, crops which depend solely on the weather will not, of course, have the extremes of variation to which Brazilian coffee is subject.

The periodical occurrence of a bumper crop is, of course, a much more serious problem if the consumer's demand for the commodity is very inelastic: if it is very elastic, a comparatively small drop in price would lead to the consumption of a comparatively large surplus, and it must be remembered that large crops mean low costs of production. While the price could not be raised very high for the short crop, the odds are that it would rise more than the increased costs of that short crop, and thus help to balance any loss on the bumper crop. But the demand for coffee is certainly extremely inelastic: of this there is abundant statistical evidence, and with the general advance in the standard of life, and more particularly the introduction of prohibition in the United States, there can be little doubt that in

the last ten years it has become increasingly inelastic. Broadly speaking, actual physical consumption varies to a quite insignificant extent with the price of green coffee, not only because coffee is a staple drink in all those countries where it is at all extensively used, but also because the price of green coffee forms less than one-third of the cost of coffee to the final consumer, and the other two-thirds, representing distribution and processing costs, are virtually fixed and unchanging so far as the short-period is concerned. Hence the surplus of a bumper crop cannot be forced into consumption, whatever the price: it must either be destroyed by the producers, or it must be carried as stocks, over and above the stocks of convenience, until required to make good the supply from sub-normal crops. Under laissezfaire, this carrying-over of the surplus was the function of merchant speculators. Competition among them would ensure that the producer got a price not markedly out of relation to the costs of the operation, allowance being made for the degree of risk involved, but these costs are so heavy that such a price would be very much below the normal price. When the short crop eventuates, the speculators liquidate the surplus stocks which they have been carrying, with the result that the supply available is near the normal, and therefore the producer obtains little more than a normal price for his short crop, despite its probably high cost of production.

In such circumstances, the producer feels that he suffers a double injury, and in the case of Brazilian coffee, since a bumper crop is at least mainly balanced by a short crop the very next year, the planter had the mortification of seeing the coffee which he had produced one year sold to the consumer a year or eighteen months later at a price perhaps half as much again or more as that which he had received for it. The merchant speculator seemed to him an outrageous profiteer who waxed fat upon his ruin. If only that surplus could have been kept off the market one year, all would have been comparatively well! Further, he had deep-rooted suspicions that the possession of this surplus enabled the speculator, by arranging his sales, to push down the price for the few months at the beginning of the next crop year when the farmer had to sell, subsequently allowing it to rise to the normal level: thus the farmer reckoned that he did not get the full price which he ought to have got for his short crop. He felt the merchant speculator played with loaded dice all along the line. To such feelings the Government of São Paulo, and the Federal Government of

Brazil, lent sympathetic ears. The former was interested because coffee is the foundation of the whole economic life of the State, and therefore determines the volume of the State revenues, while the Federal Government was interested because coffee exports, which form over 70 per cent. of Brazil's total exports, virtually determine the rate of foreign exchange: coffee provides the sterling and dollars required for the service on foreign loans.* A bumper crop, and the resulting drastic fall in the price of coffee, threatens the solvency of the country and its whole economic stability. The Federal Government, however, has never been too eager to defend coffee for fear of jealousy on the part of other states at what appears to them preferential treatment to the politically powerful coffee interests: it is not easy to convince the north and the south that coffee defence is necessary for the maintenance of exchange, or for that matter that the maintenance of exchange is of any considerable Hence the Federal importance to them. Government has never taken part in attempts at valorisation unless and until the situation has reached a stage when action of some sort seemed imperative. The initiative has always come from São Paulo, where political success depends upon the contentment of the planters and of the innumerable interests concerned directly or indirectly in the price of coffee.

The first valorisation scheme was started in 1906 to meet a situation which was already bad as the result of an excessive expansion of capacity during the 'nineties, and which was rendered absolutely critical by the prospect of a huge bumper crop. This crop proved to be over 23 million bags as compared with a world consumption of Brazilian coffee averaging about 11-12 million bags. São Paulo might have taken much the same action if there had been no such excess of capacity, and the only problem had been the bumper crop, but undoubtedly it was the combined effect which induced the taking of the plunge on this first occasion. A first step towards artificial control had, however, been taken in 1902, when all new planting within São Paulo had been prohibited for five years. This prohibition was subsequently extended for another five years. Up to 1906 or 1907 new trees planted before

1902 were, of course, coming into bearing, but after that there was no addition to capacity for another ten years, and this undoubtedly contributed very greatly to such success as was achieved by the valorisation scheme, and to the comparative prosperity for the three or four years from 1911 onwards. With an expanding consumption the excessive supplies were bound to be absorbed sooner or later, if no expansion of capacity was permitted—a feature of the situation which has not perhaps received due attention from students of this first valorisation scheme.

The valorisation took the form of purchases * of coffee in the world's markets, which were then stored until the price rose and they could be sold at a profit. The states of São Paulo. Rio and Minas at first co-operated in drawing up a joint scheme, but the Federal Government. when called upon, refused to do its part on the financial side, and eventually São Paulo was left to take action alone. The resources of the São Paulo Government, however, were quickly exhausted, and so the aid of a group of New York merchants was enlisted. Before long their resources also became exhausted, and help was then obtained from a consortium of London and New York bankers who made large advances. At the peak point which was reached early in 1908, the São Paulo Government and its allies were carrying rather over 10 million bags. The fall in price was at last stemmed, and towards the end of that year a rise began. The bumper crop had been followed by a small crop, and the crop of 1908-9 was still sub-normal, but though this made matters easier, the combined deficiency was far less than the surplus. At the end of 1908, however, the bankers became satisfied that a successful liquidation was possible, and eventually a scheme for a £15,000,000 loan and liquidation over ten years was drawn up. The bankers required the Federal Government's guarantee for this loan: this was given, and so finally the Federal Government was drawn in. The loan apparently provided little new money: it simply replaced all the various advances which had been obtained, and consolidated the whole position. During the next five years liquidation of the stocks proceeded in an orderly manner to the accompaniment of steadily rising prices, and by 1914 the loan had been entirely repaid. The São Paulo Government, however, still held some 3 million bags stored in Germany and Belgium: this was commandeered by the

^{*} It should be observed that as regards exchange there is considerable divergence between the points of view of São Paulo and the Federal Government. The latter normally wants a high exchange, or at least stabilisation at a conveniently high level for making foreign payments. Coffee planters, however, prefer a depreciating exchange, since this means a higher milreis price, and their costs are not much affected by the external as opposed to the internal value of the milreis. The community of interest arises because rising coffee prices usually mean rising exchange, and from the planters point of view the benefits of the former usually outweigh the disadvantages of the latter.

^{*} It is interesting to note that a levy "in kind," the coffee to be destroyed, was the chief rival remedy: the 20 per cent. tax in kind, which was imposed in 1931 and rendered abortive by the opposition of the planters, was thus no new idea.

former during the War, and it was not until the Peace Conference awarded an indemnity to Brazil for this seizure that the accounts of the scheme could be completely closed.

No attempt will be made in this Memorandum to provide a detailed history of this valorisation. It offers various points of considerable interest as the forerunner of the more fully developed control which has since been attempted, but apart from this aspect it now possesses historical interest only, and the above outline will suffice. Attention has been drawn to the prohibition of new planting, the importance of which will be more fully appreciated when the history of the last ten years has been recounted. Brazil did not take this lesson to heart, but she did learn a good deal about the practical economics of stock-holding. More particularly she learnt that the holding of large stocks for long periods at the chief centres of consumption is not only extremely costly, but that these stocks hang over the particular market concerned and weigh down upon the price in that market, since buyers know that the stocks can be had at a moment's notice, and that therefore there is no need to buy ahead, as would be the case if supplies could only be obtained by shipment from Brazil: equally buyers know that such stocks will not be readily transferred to other centres, since this involves considerable additional expense. If these stocks had been held up-country in Brazil, or even at Brazilian ports, the actual cost of storage would have been much smaller, while the depressing effects on the price in particular consuming markets would have been avoided. These were important lessons, and they were to be demonstrated positively, and not merely negatively, on the occasion of the next valorisation, when, owing to the War, shipment abroad was impossible and the stocks had perforce to be accumulated within Brazil.

The chief lesson, however, concerned the general virtues of valorisation as opposed to laissez-faire. The accounts published by the São Paulo Treasury show a profit of about £10,000,000, but these accounts ingenuously include on the assets side the proceeds of the special 5 francs sur-tax which was levied to defray the interest charges of the loans obtained for the purchase of the coffee. The proceeds of this tax amounted in all to nearly £20,000,000, and while it can be argued that the prices ruling from 1910 onwards were above what the statistical position warranted, and that therefore the consumer was paying a share of the tax, this share can hardly be put at more than one-half, which would thus wipe out the apparent profit. What is certain is that the

bankers and the merchants made small fortunes out of the operations, but again it is impossible to say how far this was at the expense of producers or consumers. The truth is that the success or failure of such a scheme cannot be reckoned in monetary gains or losses: we know that the planters contributed nearly £20,000,000 in taxes, but we cannot say whether they would have been better off under laissez-faire, because we have not the least idea of the course which prices would have followed in the absence of valorisation: certainly the price level would have been much lower, but how much lower cannot be determined or even estimated. Weighing a great deal more evidence of various kinds than has been presented here, my own conclusion is that on the whole Brazil suffered considerably less than she would have suffered under laissezfaire. But such conclusions, whether right or wrong, are not of much importance. What really matters is that the coffee interests of São Paulo believed whole-heartedly in the success of the scheme, and were convinced that valorisation was the solution for all similar difficulties in the future.

When, therefore, in the second half of 1917. actual and prospective supplies were so heavy relative to the demand that the price began to fall rapidly even from an existing sub-normal level, the obvious remedy was to embark upon another valorisation. It has been observed by several writers that the trouble in 1917 was really the fall in demand consequent upon the War; Central Europe had to obtain its supplies of coffee in a roundabout way through other nations, and was unable to buy so freely, while in any case there was a great and increasing shortage of shipping, and the combined result was a serious accumulation of stocks in Brazil. It is true that these difficulties became more acute in the latter part of 1917 as the Allied blockade was tightened up, and there is no question that a reduced demand was a most important factor in the situation. But the fall in prices was undoubtedly precipitated by the flowering in September 1917, which promised a bumper crop the following year, and it was this which seemed likely to make an already difficult situation little short of critical. If the trouble had been solely the reduced demand, valorisation would have been a hopeless policy, for there was little prospect of an early recovery of that demand to the super-normal level necessary to absorb accumulated stocks. But the trouble lay at least as much in the prospect of the bumper crop, and therefore valorisation had some rational basis.

As before, São Paulo took the initiative,

but since foreign borrowing was impossible, the finance required had to be raised within Brazil, and for practical purposes that meant by or through the Federal Government. Federal Government, however, had been convinced of the profitable character of valorisation, and its attitude was by no means so adverse as it had been in 1906. Eventually the Federal Government agreed to issue paper money as a loan to the São Paulo Government, any profits accruing from the operations to be divided equally between them. With this money, and by some borrowing on its own Treasury notes, the São Paulo Government bought rather over three million bags of coffee, with the result that the monthly average price of spot Santos 4's at New York rose from 9.47 cents in November 1917 to over 11 cents in April 1918, which level was nearly maintained for the next two months. Then at the end of June came the great frost, and the success of the valorisation was assured in the same night which brought temporary ruin to the vast majority of planters. The frost was so severe that it reduced the anticipated bumper crop, then being harvested, to the dimensions of a very small crop, while the damage done to the trees promised a very much smaller crop still in 1919. Prices rose swiftly as the full extent of the damage was realised, and had reached over 15 cents by November 1918. The Armistice then opened the prospect of a revival in demand, and the price shot up to over 22 cents, which was the average for the first half of 1919. With the certainty of an incredibly small crop, and with a demand now become insatiable, the price averaged no less than 27 cents in the second half of the year. The São Paulo Government was able to dispose of its holdings of coffee at an enormous net profit, which is said to have been of the order of £4,000,000 to £5,000,000, and this is by no means improbable. Many planters had, of course, been ruined by the frost, but that had nothing to do with valorisation. What valorisation had done was to give all of them a much better price for their 1917 crop than they would otherwise have received. Accordingly, they were more than ever convinced of its virtues, while the Federal Government and the São Paulo Government, though not of course blind to the luck which had rescued them from what might otherwise have been a prolonged and difficult liquidation, were nevertheless inclined to believe that God was indeed a Brazilian,* and had set the seal of his approval on their actions.

* This phrase rises continually to Brazilian lips. On repeated occasions frost or rain have been sent to rescue the coffee industry from critical situations.

Consequently, when the post-war boom collapsed at the same time as the relatively large crop of 1920-21 was being harvested. and the price of coffee glissaded from 23.5 cents in June 1920 to 9.5 cents at the beginning of 1921, while exchange more or less followed suit, recourse was had to valorisation almost as a matter of course. On this occasion the Federal Government took control at the start. largely perhaps on account of the exchange position. The history of coffee defence as distinct from intermittent valorisation schemes now begins, for in October 1921 a measure for permanent valorisation was introduced into Congress. The story from this point onwards forms the main subject-matter of this Memorandum. It will be convenient, however, to present here a very short summary, partly to provide the reader with a general conspectus. and partly as a necessary prelude to some general remarks and conclusions on the whole

subject.

The valorisation of 1921 was again carried to an extremely successful conclusion, and the whole of the coffee purchased was sold by February 1924. Meantime a permanent scheme of control had been established by the Federal Government which took the form of regulating the amount of coffee entering Santos each day, any surplus to market requirements being stored in special warehouses. During 1923 this regulation of entries and the disposal of the accumulated stocks were conducted conjointly, and the former was continued after the latter was completed, so that the market was at no time over-supplied, either by the liquidation of the stocks or by the surplus of the large crop of 1923-24. On July 1st, 1924, about 41 million bags, constituting the surplus of this crop, were being held up-country, in State warehouses constructed as part of the scheme, against the short crop which it had been rightly anticipated would follow in 1924-25. But there had been earlier a very significant political event, for at the end of 1922 a Minas man had been elected Federal President. President Bernardes was averse to valorisation schemes, and still more so to the idea of permanent control. Until the liquidation of the 1921 purchases, however, his hands were tied, and he could not reverse the policies of permanent regulation initiated by the previous regime. By the summer of 1924 he was free to do so, and the result of prolonged discussions and negotiations was the handing over of the task of defending coffee to the Government of the State of São Paulo.

During the next two years (1925 and 1926) the São Paulo Coffee Institute, which was in

effect a State Department established by the São Paulo Government for the purpose of administering the permanent defence scheme, was primarily engaged in constructing the edifice required for full and complete control. But the regulation of entries into Santos was maintained, and this form of control was reinforced by intervention in the Santos market whenever the price showed any tendency to decline unduly, or when "bear" raids seemed to require a counter-attack. But during these years the supplies available were barely adequate to meet the demand, and the maintenance of prices at a relatively high, though in general declining, level was chiefly due to natural economic factors and not to artificial control, though the latter was undoubtedly effective in curtailing the much larger fluctuations of price which would otherwise have taken place. Control during these years may be judged to have been conducted with considerable skill and with benefit to the producer, even if it made little difference to the average level of prices. Towards the end of 1926, the hitherto arbitrary control of Santos entries was replaced by an automatic system, under which the monthly entries were to be based on the actual exports of the previous month: thus, if increasing exports showed an increasing world absorption, supplies would increase the following month. Later, a greater elasticity was introduced by the institution of a system of supplementary entries whenever the New York price rose to any appreciable extent, such supplementary entries being discontinued if the price relapsed. But a far more important development, which also took place at the end of 1926, was the conclusion of a loan of £10,000,000 from London, and the resulting organisation of the Banco do Estado de São Paulo for the special purposes of discounting the bills of lading of coffee despatched by the producers to the regulating warehouses, and of giving mortgages on coffee plantations, though the Banco was not precluded from any ordinary banking business. The possibility of holding large stocks was, of course, conditioned upon the ability of the planter to obtain sufficient cash to carry on cultivation; and by standing ready to discount any bills of lading which the ordinary banks might be unwilling or unable to discount, and by providing further facilities for obtaining mortgage loans on the actual plantations, the Banco do Estado was to ensure that the planter's needs would be adequately met.

This provision of a substantial financial basis was not achieved a moment too soon, for the flowering of the trees in 1926 had given promise of a bumper crop in 1927, though the full size of this bumper crop was not realised until harvesting began in May and June. The São Paulo crop proved to be over 17 million bags, and the production of the other States over 8.5 million bags, making a total supply of 26 million bags against an exportation from Brazil of rather less than 14 million bags in each of the previous two years. Seeing that stocks carried over in the São Paulo regulating warehouses on July 1st, 1927, were no less than 3.3 million bags,* the outlook was for a carryover of about 15 million bags on July 1st, 1928, while at the peak the stocks would be

well over 20 million bags.

The outlook was, in fact, as terrifying to the other coffee-producing States as to São Paulo, and they were at last persuaded to join with São Paulo in meeting the situation by adopting essentially the same measures of control. For practical purposes it may be said that Brazilian coffee producers from the summer of 1927 onwards have presented a united front, though the other states have never been so enthusiastic São Paulo. Without adequate finance, however, this mere extension of control made little difference, and the price of coffee was obstinately falling. The hopes of consuming interests, and the fears of Brazilian producers, that a breakdown of control would ensue were, however, ended by the provision of large additional supplies of money from London in September. The crisis was virtually over, prices rose rapidly from less than 17 cents † in August 1927 to 23 cents in March 1928, and were then maintained at that level for the rest of the year. Paulista faith in artificial control thus seemed to have been more than justified, and though the carry-over on July 1st, 1928, was 13 million bags, the 1928-29 crop for all Brazil was less than II million bags, so that a substantial reduction would inevitably be effected during the coming season. Further, all experience indicated sub-normal crops for at least two or three seasons after such a bumper crop, and therefore the surplus would rapidly disappear, for since the world's visible supplies were so low, it was reasonable for Brazil to maintain an interior stock of at least 3 or 4 million bags.

So far as the statistical position and its prospects were concerned, such an outlook was not unreasonably optimistic. The Institute had survived the storm in a remarkable way, and, though heavily laden, there was no

^{*} The Institute's policy in allowing such a carry-over in the face of a bumper crop may be sharply criticised, but there is something to be said in its defence. The matter is discussed on p. 37 below.

† Throughout this Memorandum all price quotations in cents refer to the monthly average spot price of Santos 4's on the New York market, unless expressly defined otherwise.

apparent reason, so far as could be seen from the bridge, why she should not eventually reach port. But the captain and the crew did not realise that well beneath the water-line the ship had sprung at least two big leaks, which were daily increasing. One was the extent of the new planting which had been taking place within Brazil during the last few years, and which was now proceeding at a pace far in excess of any probable increase in consumption. Admittedly the effects would not be felt for another year or two, and the full effects not until still later, but the fact remained that, other things being equal, Brazil would shortly have to face the problem of excessive capacity as well as the problem of crop variations. Once the size of the normal crop began rapidly to increase as the result of increasing capacity, the disposal of any surplus stocks would obviously be full of difficulty. The second leak, however, was immediately the more serious. The bumper crop of 1927–28 had been financed not on the basis of the planter's minimum requirements of cash for the continuance of cultivation, but on the ordinary commercial basis of the current value of the coffee offered as security. The latter was far higher than the former, even on the most generous basis, and the vast majority of the planters had more money in their pockets by the end of 1927 than they had ever had before in all their lives: moreover, their immediate income prospects were little short of entrancing. This superfluity of cash led to various results, of which the most significant, apart from the new planting already mentioned, was the generation of a general trade boom, with the inevitable accompaniment of an expansion of bank credit to a most dangerous extent. The whole banking system of São Paulo was daily becoming less able to finance large stocks of coffee in addition to the increased credit requirements for general industrial and commercial purposes, swollen as these were by the hectic trade activity. An increasing strain on the foreign exchanges developed, but for a time this was neutralised by heavy new borrowing of capital from abroad, and the Federal Government appears to have been equally oblivious of what was happening. At the back of the coffee situation was the financial situation in Brazil; there lay the key to the whole situation, but the world was concentrating its attention so closely on the statistical position of coffee that few, if any, observers troubled to glance at the returns of the São Paulo banks, though these were telling a most interesting and a very different

Even the superficially satisfactory and

hopeful appearance of affairs in the early part of 1928 was, however, completely destroyed by the flowering of the next crop in September. What had been deemed virtually impossible, now happened, for this flowering gave almost certain promise of a second bumper crop following at only one year's interval after the previous bumper crop. Unless there was a devastating frost in 1929, there was clearly small hope of successfully liquidating the stocks already accumulated if these were now to be swelled by the surplus of another bumper crop. quite apart from any question of Brazil's capacity to finance such stocks, and quite apart from the increase in normal capacity which would shortly result from the heavy new planting. From September 1928 onwards it was clear that nothing short of a miracle would enable the ship to reach port. But the exact moment when the ship would founder, could not be predicted with any accuracy on the basis of the information publicly available. As the months passed by, the worst fears as to the size of this second bumper crop were realised: it proved to be larger by 3 million bags than even the 1927-28 crop. But consuming markets appear to have thought that there would be no difficulty in financing it, and that therefore the crash would not take place until 1930 at the earliest. How far this conclusion was based upon the idea that Brazil had sufficient resources without the need for further foreign borrowing, or how far upon the idea that further foreign assistance would be readily supplied, it is difficult to say. What can be said, is that the world thought that one or the other would be true, and the same applies to opinion within Brazil. The crash came quite unexpectedly in October 1929 because neither proved true: the São Paulo Institute and the Banco do Estado ran short of money for the discounting of bills of lading, and foreign assistance was not forthcoming in the existing world financial condi-It is always easy to be wise after the event, but it may perhaps be observed that if adequate attention had been given to the credit and banking conditions in São Paulo, it should have been clear that such huge additional stocks could not have been carried without further assistance: London alone could really be expected to supply such assistance, and while this might have been given in the summer, any such possibility was finally disposed of in mid-September by the perturbation following the Hatry affair. Nevertheless, it would have needed great self-confidence for an operator to go against the expectations of all his fellows, even if he had himself appreciated the true situation sufficiently quickly.

The second bumper crop had not been altogether a matter of sheer bad luck, though undoubtedly the weather played a big and perhaps the biggest part. The prosperity of preceding years, however, had led to more intensive and careful cultivation of the trees. and this had resulted in greatly increased powers of recuperation. Moreover, on many of the older estates small sections, which had been abandoned during the preceding year or two, had been rescued from the weed growth, and by heavy manuring made to give a reasonable yield: the cost of the operations could be recovered in a single season at the 1927-29 price level. In addition, the number of young trees planted from 1922-25 was not inconsiderable, and in 1929 these contributed an appreciable part of the crop. It should, however, be emphasised that the much more extensive planting which began about 1926 had nothing whatever to do with the bumper crop of 1929, for the reason that these trees were not yet in bearing. As in the case of the British rubber control, the failure of which was popularly ascribed to new planting by Dutch natives as the result of artificially high prices, whereas, of course, no tree planted during the control was yet in bearing when it was removed, so now with coffee, much the same error of ante-dating developments has been committed by many observers. But of course the potential excess capacity, represented by the new planting from 1926–29, disposed of any reasonable possibility of a restoration of prices to the levels existing before the crash. The price would inevitably have to decline to a level which would eliminate a sufficient quantity of the highest cost capacity, however much Brazil might seek to prevent it. Many foreign observers, however, thought that all control would necessarily be abandoned and the situation left to right itself. But they were wrong in supposing that the resources and resourcefulness of the São Paulo Government and the Institute were so completely exhausted as to compel a return to laissezfaire, while they were ill-informed as to the Paulista state of mind regarding the situation. This was radically different from the opinion of consuming markets, which fully appreciated the significance of the crash. For months São Paulo viewed the crash as a mere market break, precipitated by the enemies of coffee defence. All that was necessary was to procure more money from abroad—London would obviously provide this when it had realised the position -and then control could be re-established, the price raised, and prosperity resumed. Even to-day the Paulista is only half awake to

the realities of his situation, and though the leaders woke up more rapidly, even their awakening has been painfully slow.

The developments and issues of the last two years are, however, so complex and debatable that a short summary runs great risks of being misleading: any considerable "boiling-down of the contents of the last two sections of this Memorandum seems almost as inadvisable as it would undoubtedly be difficult. Our outline will therefore be terminated here, not because the last two years lack interest for the economist, and still less for the student of artificial control schemes, but primarily for the reason that sufficient time has not yet elapsed to make possible that confidence in the choice of perspective which justifies the omission of any considerable amount of detail, and the concentration of subject-matter which that alone makes possible. This is not to say that the author is unprepared to offer any conclusions relating to these more recent developments his conclusions, such as they are, will be found in Sections III and IV—but simply that conclusions cannot be offered with the same degree of certainty, and therefore of brevity, which is possible in the case of the more distant history. Even the period up to 1929 is still so close as to preclude any full and final judgment, but certain matters at least can be singled out as unlikely to lose the importance which they now seem to possess, and general judgments thereon seem unlikely to require significant modifications. From a number of such matters as are considered in the Sections dealing with the conduct of defence up to the crash of 1929, a selection has been made for summary presentation here.

In the first place, the influence of the defence operations in raising prices above the average level which would have obtained under laissez-faire has commonly been greatly overestimated. The principal effect of the various forms of control exercised during the period 1922-26 was to minimise the fluctuations of prices which would have ensued under laissezfaire. This greater stability of prices was achieved with comparative ease, because supplies over the period as a whole were barely sufficient to satisfy the world's requirements for consumption, and therefore stock-holding operations were comparatively easy because of relatively small dimensions and short duration. While there can be no certain answer, it seems probable that the benefits which the producer secured by and through this greater price stability considerably outweighed its cost to him. In these years the defence scheme was performing its primary function of averaging out variations, but it was not raising the average level of prices above what it would otherwise have been. Incidentally, therefore, such new planting as took place during these years was not the result of artificially high prices; and most of it * would have taken place in any case, assuming that new producers correctly estimated the average level of prices under *laissez-faire*. On the whole, little serious criticism can be made of the Institute's policy up to the end of 1926, and accusations that prices were artificially raised above the natural average level must be confined to the

period from 1927 onwards.

Conclusions and criticisms on the mechanism of control will be found in Section II, and no attempt will be made to present here a summary of such detailed and complicated issues, for there was no serious mechanical breakdown, and it may indeed be said that such minor improvements as experience showed to be advisable, were forthwith adopted. There is, however, one matter in connection with the mechanism of control which will be considered here, partly for the sake of convenience, because it would otherwise be intruding at every turn, and partly because it is so unpleasant that the sooner it is disposed of, once and for all, the better. I refer to the bribery and corruption which accompanied the defence scheme, and if I write plainly on this matter, because of its tremendous importance in nearly all artificial control schemes, any Brazilian reader can assure himself by reference to the previous Memoranda in this series that for the same reason I have dealt with it as plainly where a British colony was concerned as well as other countries. Experience seems to show that corruption is as definite a drawback to artificial control schemes as it is to tariffs, and it is as impossible for a student of the former to neglect it as it would be for a student of the latter. The results may not make much difference to the effectiveness of the control scheme, but it makes a great deal of difference to the whole public life of the country exercising the control. Brazil, like many other countries in an early stage of development, has been fighting hard for cleaner politics and a more trustworthy Civil Service: great progress has been made during the last thirty years, but the defence scheme resulted in a big set-back, and this is part of the price which in most cases must be paid for the economic advantages of control.

Naturally in such matters an investigator cannot quote much specific evidence for his statements: he can only weigh the information which he has collected from sources which he

reckons to be reliable, and take the utmost pains to make his summary as fair and wellbalanced as he possibly can. Broadly speaking there were three spheres in which corrupt practices of different kinds were prevalent. first was the Santos market, and to a lesser extent other Brazilian markets. much doubt there was a good deal of private speculation in the Santos terminal market, and even probably in New York, by the inner political circle which virtually controlled the Institute's operations, and by their personal friends. Again, some commissarios, and even probably some exporters, with friends at court often succeeded in getting "tips" which enabled them to steal a march on their less fortunate competitors in respect of their ordinary business transactions. It is impossible to say how much this kind of thing actually interfered with the operations of the control. and how much it facilitated them: probably on balance it did not make a great deal of difference. It is, however, a form of corruption which is extremely difficult to check, and even to-day it probably continues, though on a smaller scale. The second sphere was centred on the regulating warehouses. There was for a long time what might be described as a definite trade in getting coffee through the warehouses without appreciable delay, or in advance of its proper turn: it is said that at one time, in order to secure more or less immediate delivery, it was only necessary to go to the proper quarter and pay down some 20\$000 per bag. Again, the officials in charge of a warehouse could easily hold back a few receipts pending the arrival of a favoured planter's coffee some months later, which coffee would, of course, be released according to the date of its receipt. This involved post-dating the receipts of non-favoured lots, and from the point of view of the efficiency of the control scheme, such practices made little difference: it was simply one man's gain and another's loss. So much discontent was. however, aroused that by 1928 there was little short of a popular outcry, and the Institute took specific steps to prevent these irregularities, and apparently with some measure of In Rio and Minas, however, the reguladores were simply private warehouses licensed for the purpose, and a possibly intentional slackness of control on the part of the Institutes and Governments of those States made irregularities still easier, and therefore on a larger scale. Early this summer, for example, a public scandal was created by the discovery that a warehouse in Rio contained only 60,000 bags whereas it should have contained 300,000 bags: the difference had been

^{*} The reason for this qualification is discussed on p. 16 below.

shipped out, and of course no taxes had yet been paid, as this would have resulted in disclosure.

Corruption, however, was far more widespread, in the sense that more persons were concerned, in the third sphere, namely, at the up-country stations from which the coffee was despatched. Until the so-called "series" system was introduced in 1929, the planter who was the first to ship his coffee to the reguladores, was the first to get it out. In order to ship he had to get railway wagons, and since the supply was limited, the station agent was supposed to see that everyone was fairly treated. Actually, the man who bribed him most got all the wagons he wanted, unless indeed he bribed not the station agent but some superior official whose hints the station agent could not disregard. He who bribed least, or did not bribe, had to wait. This was by far the most widespread and vicious form of corruption, and though it made no difference to the control scheme, it excited very great discontent and indignation until it was ended in 1929.

Ordinary smuggling was not a serious problem, at any rate in São Paulo, for the simple reason that it was not feasible. Road transport from the fazendas to Santos is too expensive, and all coffee passes into Santos over the one railway from São Paulo city: supervision is thus comparatively easy. There was, however, a little smuggling from fazendas in the States of Rio and Minas by road to some point on the bay of Rio, and thence by barge or sailing boat into the harbour, and also a small quantity probably found its way from the interior of São Paulo down the Parana river, but the sum-total of all smuggling was not significant. In general, therefore, the corruption which mattered concerned the politicians in high places, and the Government officials great and small,* who were engaged in operating the control scheme. By 1929 it had undoubtedly been considerably reduced, but it can never be stamped out, and Brazilian coffee defence supplies yet more evidence of the tremendous difficulty of maintaining an honest administration of any scheme of artificial control. This constitutes my second conclusion, and it is as important as it is melancholy.

My third main conclusion is really concerned with policy rather than with operating technique, though it could be classed under the latter heading. It concerns the scale on which the producer was financed in respect of his

current crop when it was despatched to the regulating warehouses. The first really big error on the part of the Institute was the financing of the bumper crop of 1927-28 on the basis of the current price at which coffee was selling, when it should have been the much lower basis of the farmer's minimum requirements of cash for the continuance of cultivation. Planters in São Paulo at the end of 1927 had far more cash in their pockets than they required. It was the high financing of this crop which not only strained the credit resources of the country, but also caused a general trade boom in São Paulo. The credit resources of the country were therefore not conserved for the purpose of coffee financing to the extent which they might have been, and thus more had to be borrowed from abroad than should have been necessary. It is not suggested that no foreign borrowing would have been necessary if the financing had been done on a more reasonable basis, but that the dependence on foreign borrowing would not have been so complete: it was the almost complete dependence on foreign borrowing which precipitated the collapse. Another serious result of the excessive financing of this 1927 crop was the stimulus to new planting: if the planter had not had so much cash that he did not know what to do with it, and if facilities for borrowing more had not been so extensive, it is reasonable to suppose that new planting would not have assumed the enormous proportions which it did assume from 1927 to 1929. The excessively high financing of the 1927 crop undoubtedly sowed the seeds of eventual destruction. Admittedly it would not have been easy to reduce the rate of advances. The business world is accustomed to the idea of advances based upon the current value of the security offered, modified by its prospective value in the near, rather than in the more remote, future. If the Institute, through the Banco do Estado, had offered much less than the ordinary banks were prepared to grant, this would most probably have been interpreted as a sign that the Institute doubted its ability to maintain current prices, and confidence would have been badly shaken at what was certainly a most critical time. It seems indeed that the financing required under such a scheme of control is best provided exclusively and directly by the control, for as long as it is done, even in part, through ordinary banking channels, the basis of current values must almost inevitably remain. In practice, however, the temptation to borrow as much as the world is prepared to lend is probably irresistible—a prolonged education of the

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^{*} The evil is not, of course, confined to the sphere in which it originates. He who becomes untrustworthy in one sphere is likely to become so in general, and at the best he stands generally suspect.

ordinary agricultural producer will be required to convince him that the success of such control schemes depends upon borrowing on the smallest possible scale. The success of such schemes in the future, therefore, seems likely to depend in practice upon the greater caution of lenders rather than on the selfdenial of borrowers, and it is to be hoped that lenders will realise that the rules of ordinary crop financing are not applicable to the financing of artificial control schemes.

My fourth main conclusion concerns a subject to which reference has already been made, but which demands more specific attention, namely, the extensive new planting which has taken place within Brazil. As has already been said, the new planting which took place up to 1926 was not directly caused by control, since during this period prices were not higher on the average than they would have been under laissez-faire. This conclusion, however, requires some small modification. If we suppose that the would-be new producer carefully weighs all the relevant pros and cons, it follows that under laissez-faire he must allow for the possibility of a general bumper crop, and therefore a period of very low prices, coinciding with the period when his trees reach effective bearing age. In other words, he must estimate his requirements of working capital not merely on the period of, say, five years which must elapse before his trees come into bearing, but for a possible one, two or three additional years during which he will only get very low prices owing to a bumper crop in the fifth year. If, however, the price is more or less stabilised by an artificial control scheme, he can rule out this possible prolongation. If he thinks that the consumer will bear the cost of this price stabilisation, his prospective profits become greater than they would otherwise have been, while the same will be true, though to a smaller extent, if he reckons that the price he must pay for stabilisation will be less than the loss he might incur under the fluctuating prices of laissez-faire. Now there is little doubt that the popular idea amongst the São Paulo planters was that the consumer would pay the costs involved in the defence scheme: in brief, the prospect, as then envisaged by them, was that prices would be permanently maintained at a profitable level without cost to themselves, instead of dropping periodically to a ruinous extent. Hence, even though the level of prices from 1922-26 was not artificially high, more new planting was probably undertaken during this period than would have occurred under laissez-faire. The amount of new planting during this period, however, was not, in fact, so great as to be a serious menace in the future: the available statistics indicate the planting of about 250 million trees during these years. At their peak production this number of trees would not produce more than 4½ million bags, and this would not be realised for ten years and more, during which time consumption might be expected to increase by, say, 2 million bags, while the yield of the oldest existing trees might be expected to show a substantial decline, and a certain proportion would be abandoned. Much the same may be said of the new planting in the other States of Brazil, though in their case the control of the São Paulo Institute was a more definite stimulus, since at this period they enjoyed all the advantages of price stabilisation at no cost to themselves.* in general the amount of new planting in Brazil up to 1926 was not such as to constitute a serious excess of capacity in the future, and the Institute had no serious reason to worry about it.

New planting, however, became a very serious problem from 1927 onwards. Institute's triumphant maintenance of prices finally convinced the planter that he could look forward with absolute certainty to permanent stabilisation at a profitable level, and this greatly increased the stimulus which, as we have just demonstrated, arises from this assumption. But the real trouble was that he now obtained ample means to give effect to his desires, through the high financing of the cheaply produced bumper crop of 1927. Even reasonably reliable statistics are still lacking, but it seems more than probable that in the three seasons, 1927–28, 1928–29, and 1929–30,† not less than another 250 million trees were planted. Even if the surplus of the first bumper crop of 1927 could have been disposed of successfully against the continual increase in the size of the normal crop as the 1922-26 plantings gradually came into more and more heavy bearing, there was no chance whatever of the successful disposal of the huge additional surplus of the second bumper crop of 1929 against the still more rapid increase of the normal crop resulting from the 1927-30 plantings. The Institute would have been wise to prohibit new planting as soon as the 1927 bumper crop came into sight, i.e. in September 1926: this would have been in time to stop planting in the 1926–27 season. Two years

^{*} The State of Minas Geraes was, however, levying the same transport tax as São Paulo, though there was little or no control of port entries.

or port entries.

† New planting takes place in December and January, and though the crash had taken place in October 1929, there was a considerable amount of planting two months later, as the land had already been cleared, and the crash was still considered to be a mere market break.

later, the need for such prohibition had been demonstrated by the very large planting which had been undertaken in the 1927-28 season, and then in September 1928 came the virtual certainty of a second bumper crop. If the Institute had acted even then, it would have prevented the still larger planting which took place in the 1928-29 season. Actually new planting was not prohibited until nine months ago, when, of course, it was really unnecessary, for no one thought of planting in 1930-31. The São Paulo Institute would have had to act alone in September 1926, for the other States were not yet co-operating in the defence scheme, and of course it would have been difficult for the politicians to convince the Paulista that he should leave his neighbours free to plant, while such prohibition might have given a serious blow to confidence at what was a very critical time. General agreement could, however, have been procured without much doubt in 1928, but by that time the São Paulo politicians were concerned only with the political advantages of prolonging prosperity to the last possible moment, and since they realised that a crash could not be delayed more than two or three years, they were not interested in anything which only mattered four, five and more years ahead. A more detailed study of this problem of new planting, however, suggests unmistakably that such a control scheme must provide for the direct regulation of additions to capacity; as with finance and many other matters, there is no half-way house between artificial control and laissez-faire; to be really successful the former must completely, and not partially, replace the latter.

The above reference to the attitude of the São Paulo politicians paves the way for my fifth main conclusion, which is perhaps the most fundamental of all, namely, that the Government of the State of São Paulo deliberately used the defence scheme for political purposes. The same charge probably lies in a modified form against the Federal Government, and to some extent against the Governments of the other coffee-producing States, in that they failed to make even a reasonable stand against São Paulo. Political motives constantly intrude in various minor forms throughout the history of the defence scheme, but from September 1928 onwards they became completely dominant. The flowering of the trees in that month gave almost certain promise of a very large crop in 1929, and it then became abundantly clear to all sensible persons that a radical change in policy was the only chance of a successful outcome. The Institute, however, carried on as if no change in the situation had

occurred, and persisted in this course even when the actual picking more than confirmed the highest estimates made in 1928. To the very last moment, the politicians kept up the pretence that all was well in the best possible of worlds, and to their credit or discredit it may be admitted that they bluffed with the most consummate skill. The history of events after the crash tells essentially the same tale. Political leaders, who adopt the right policy but temporarily deceive the public as to its objective and results, may perhaps be forgiven, but for those who deliberately pursue a wrong policy and deceive the public into the belief that it is the right policy, there can be no forgiveness, least of all at the hands of economic laws. Political retribution tarried awhile, but economic retribution came swiftly. My fifth conclusion is therefore that few, if any, Governments can be trusted to conduct an artificial control scheme such as this defence of coffee: sooner or later economic considerations will be subordinated to political expediency. Such control schemes must be operated by the business interests concerned, and if the aid of the State is required, the State can be given adequate representation, such as will ensure legitimate public pressure against any attempt by those business interests to sacrifice the interests of the nation for the temporary benefit of the few. Such attempts are, of course, unlikely in a country such as Brazil, where the industry concerned is of such importance that its welfare and that of the community as a whole are almost inseparable. The real difficulty, however, is that, in the early stages of a newly developing country like Brazil, the producers cannot find representatives whom they can trust with such tremendous opportunities for personal enrichment as are offered by any scheme of artificial control. Brazilians are so used to what would in some other countries be considered corrupt practices by their political leaders, that there is a tendency to regard the resulting personal gains with indifference, but the idea of putting unlimited wealth in the hands of their fellow-planters is most abhorrent. Unfortunately it must be admitted that such fears are probably not unjustified, and we therefore reach the ultimate conclusion that, in such countries as Brazil, experiments in artificial control will probably remain largely in the hands of politicians, although experience points unmistakably to the tremendous risks of distortion for political

These are some of the more generally interesting lessons which can be learnt from a study of the period up to the crash of 1929,

but a few words must be said concerning the reactions on other coffee-producing countries. It is often said that the breakdown of the defence scheme has been primarily due to the increased production of other countries under the stimulus of artificially high prices, for which Brazil alone had to foot the bill. Such ideas, however, are largely misleading. It must be repeated that no trees planted since 1923-24 had reached effective bearing by 1929, and that trees planted after 1926 are only now just coming into bearing. The Brazilian defence scheme since 1922 cannot, therefore, have made much difference so far to the output of the mild countries, and there is no reason to believe that there is a large amount of capacity planted since 1926 and still to come into bearing. On the other hand, it is true that the production of mild coffees has greatly increased, and it may reasonably be supposed that the demand for Brazilian coffees would have been greater if there had been no such increase. Broadly speaking, the statistics of mild production show an output averaging rather over 4 million bags for some years before the War, rising to an average level of about 6 million bags around 1920, to 7 million bags from 1924-26, and then in a sudden jump to 8 million bags in 1927, since which year there has been only a small further increase. obvious inference to be drawn from these figures is that there was a steady flow of new planting in the mild countries from about 1911 until about 1918, and then a big spurt from 1918 to 1921, followed by almost complete cessation for two or three years, after which planting was resumed, but on a comparatively small scale. Now the planting from 1911 onwards coincides with the period of relatively. high prices, which was at least partly caused by the prohibition of new planting in Brazil from 1902 onwards. But this prohibition was removed in 1911, and therefore Brazil was as able to take advantage of these high prices as the mild countries. The really significant thing is that there was so little planting in the mild countries while planting was prohibited in Brazil; the explanation is, of course, that the price level from 1902 to 1911 was too low to supply any inducement. The first valorisation, therefore, cannot be said to have greatly stimulated planting in the mild countries: such planting as took place from 1911 to 1918 was at least in the main a natural development. The burst of new planting from 1918 to 1921 was also the result of naturally high prices; prices were high, not because of the valorisation of 1917, but because of the great frost in Brazil in 1918, coupled with the keenness of demand

during the post-war boom. The cessation of planting for the next two or three years was due to the general depression and collapse of prices in 1921, and, as has already been said. the amount of new planting since 1923 has not really been significant, and most of it would probably have taken place even if there had been no defence scheme in Brazil, though admittedly the development of robusta coffee cultivation in the Netherlands East Indies, to take the most outstanding example, would not probably have been so rapid. The increased production of mild coffees has been a natural and, in a sense. an inevitable process, and the fact that there was not another big spurt during the period 1922-29, undoubtedly suggests that further development was encountering serious obstacles. All reports in recent years have suggested the improbability of any further rapid expansion in Colombia, or in the Central American countries, owing to shortage of suitable land. or shortage of labour, or difficulties of transport. This is not to say that the mild countries cannot eventually increase their production, but that they are unlikely to do so on a large scale in the near future, while Brazilian measures of control cannot be made responsible for much of the very considerable development which has already occurred.

It may, however, be urged that Brazil should have taken steps to suppress this growing competition from the mild countries. that it would have been worth her while to endure a period of low prices in order to kill off a substantial volume of the increased mild production, and so maintain her monopolistic position. Such a policy might have been feasible in 1921: Brazil might have eschewed the valorisation of that year and engaged upon a fight to a finish. But it is very doubtful whether even the best-informed Brazilians realised the extent of the new planting which had taken place in the mild countries during the previous three years, and in any case the 1921 slump was quickly over, and, as we have seen, the price would rapidly have recovered to a high level even if there had been no valorisation. Brazil could not deal any serious blow at the mild countries so long as the price was naturally high. But the mild countries were enabled to deal a blow to Brazil in that, owing to the shortage of supplies up to 1926, they were able to sell their steadily increasing production without difficulty and at remunerative prices, instead of having to force it on to a market which was used to Brazilian coffee and could get plenty of it, as might quite well have been the case. The United States roasters found it necessary to use more mild coffees during these years, even though they had to pay a premium for them over the better Brazilian grades. From 1926 onwards, however, when Brazilian prices became so artificially high, the roasters naturally bought mild coffees in a free market in preference to Brazilian coffees in an artificially controlled market. The premium on milds largely disappeared, but the market readily absorbed the greatly increased supply which appeared from 1927 onwards, and cut down its purchases from Brazil accordingly. The roasters altered their blends, and the United States consumer undoubtedly came to like the change: hence the compulsorily increased use of milds during the eight years from 1922 to 1930 has undoubtedly resulted in a great reduction of the elasticity of demand for milds. Consequently, as Brazilian prices fell so heavily during the last two years, mild prices fell very much less, and an enormous premium has emerged. The position to-day is that the world insists on having all the reasonably good quality milds which can be produced, and is not prepared to allow the destruction of mild producing capacity. Brazil must therefore bear the whole burden of readjusting the world's capacity for producing coffee to the world's total consumption of Thus the reactions of the defence scheme on the mild countries have been a stiffening of the demand for their coffees rather than any appreciable artificial stimulus to increased production, and it is obvious that the former is, from Brazil's point of view, infinitely more serious, because more permanent, than the latter would have been. Brazil is undoubtedly the cheapest producer of coffee, but this will avail her little if the world is prepared to pay much higher prices for the kind of coffee produced by her competitors. Brazil can certainly much improve the average quality of her better coffees, but the peculiar qualities of, say, Colombian coffee are primarily due to soil and situation, and these advantages will be permanent, unless and until some synthetic process can be devised which will impart the true mild flavour to Brazilian coffees.

Finally, some attempt must be made to summarise the attitude of consuming interests. Many different parties, however, are grouped together in this omnibus phrase, and each had its own special reason for joining in the general condemnation of the defence scheme. We may start with the exporter. As an exporter pure and simple, he works on a commission basis, and has therefore an interest in high rather than low prices provided that the high prices do not greatly reduce the volume of trade. To

this extent he was in general sympathy with Brazil's policy of high prices, but he much disliked the methods of control. His constant complaint was that the stocks at Santos and the other ports were kept so small that he could not get the precise grades of coffee he required, while the uncertainty of the arbitrary scheme of deliveries which ruled up to 1926 was a thorn in his side, and the intervention of the Institute on the Santos terminal market often played havoc with his hedging operations. Thus he disliked the defence scheme and desired its termination, not primarily on account of the policies adopted, but on account of the mechanism of the control. Much the same may be said of the attitude of importers. Both parties, however, often join the ranks of a third group, which comprises merchants and speculators. To this group of interests, any control scheme must necessarily be most objectionable, and the Brazilian defence scheme in particular, for its primary object was that the producer should take over the functions which the merchant and speculator had hitherto performed. The Institute was literally taking the bread out of their mouths, and though they fought hard at first and returned to the attack more than once, they were completely discomfitted, and in the main they are still dispossessed to-day. All these different parties, however, are of relatively small importance compared to the roasters, and in particular the roasters in the United States, for the American consumer buys practically the whole of his supplies of coffee roasted, ground and packed in tins, and normally the United States absorbs 50 per cent. of Brazil's exports. Now for the roaster it is clear that the lower is the price of green coffee the better, not only for his profit margin but for his turnover. But this is subject to two important qualifications, namely, that above everything they want a stable price, and that very low prices help the small roasters to compete with the larger firms; the latter are therefore not too averse to moderately high prices, particularly if the level is stabilised. In the eyes of the roasters, however, the price of coffee from 1923-29 was at much too high a level to suit their convenience, and the primary cause was the Brazilian defence scheme. The only weapon in their hands was to encourage the development of supplies from the mild countries, and so reduce their dependence on Brazil. Much to their dislike and anxiety, they were therefore under the necessity of altering their blends, and of using a greater proportion of mild coffees: actually their anxieties and fears were unfounded, for the change was made so slowly that the ordinary American consumer does not appear to have been aware of it. Moreover, the strict control of supplies from Brazil forced the roasters to adopt a hand-to-mouth buying policy, and they much objected to this at first, though later they came to realise that it possessed certain ameliorations. At the very beginning of the São Paulo Institute's regime, however, they appear to have believed in the sincerity of Brazilian declarations that stability was the primary object of the defence scheme, and to have been prepared to give some measure of co-operation in return for concessions, of which the most important in their eyes was the maintenence of a reasonably large stock in Santos. On its side the Institute desired the roasters' support of their request for a loan from New York bankers, and in August 1925 an agreement was actually reached, though never signed because President Hoover intimated his disapproval of the projected loan, and Brazil's quid pro quo therefore disappeared. As the Institute developed its high price policy in the face of the 1927–28 bumper crop, the indignation of the roasters increased, though it never actually burst into flames. The Institute was well aware of their hostility, and in the middle of 1928 a special mission was sent to the United States, primarily for the purpose of studying methods of increasing consumption, but also for the purpose of converting the roasters to the merits of the defence scheme. The report of this mission emphasised the contrasting nature of the interests of the Brazilian producer and the American roaster, and the difficulties of the latter in raising retail prices to the extent necessary to provide them with a sufficient margin over the high price of green coffee. is pointed out that the roasters are in close touch with consumers, and that their warnings should therefore be carefully considered by Brazil. But the report nevertheless ends with the comforting assurance that though the producer and the roaster have such different ideas of the proper level of prices, yet mutual frank understanding and honest information, aided by "just the common sense," will bring about "commercial harmony." commercial harmony."

The crash of October 1929 was therefore welcomed with relief by the roasters, despite the considerable losses which some incurred by comparison with others whose buying policy had been better suited to the situation. Since none were carrying extensive stocks, the year 1930 was for the roasters a time of almost unlimited prosperity, for they were able to maintain retail prices despite the heavy fall in the price of their raw material. The low price of green coffee, and the huge profit margin, however, gradually stirred up competition, and in the spring of 1931 retail prices were sub-

stantially lowered: presumably the industrial depression also was exerting some small pressure on consuming power. Accordingly, when the ros. export tax was imposed in April 1931, the large roasters were not particularly displeased, and it is indeed probable that a much heavier tax would have been accepted without serious protest or retaliation if it had been imposed at the beginning of the year—that is, before retail prices were reduced.

As regards the final consumer, little need be said, for there was never any attempt at organised agitation or action, such, for example, as happened in connection with the rubber and sugar controls. Mention has already been made of Mr. Hoover's fiat to the New York bankers, but the general campaign against foreign combinations controlling raw materials essential to the United States was, of course, in fact directed specially against the British rubber restriction scheme, and coffee came in for very little attention on this occasion, though it had done so at the time of the first valorisation scheme in 1907. It would certainly seem that Mr. Hoover had altered his views on artificial control schemes long before his recent intervention in wheat and cotton. To the Institute's mission to the U.S.A. in 1928, he stated that he accepted the Coffee Institute as a system of control intended to co-ordinate production, at the same time advising the Institute to act as carefully as possible in order to prevent prices from obtaining excessive levels, which would certainly cause consumption to decrease. At this period the power of the Institute was as great as prices were undoubtedly high relatively to available supplies or to normal costs of production! By 1928 Mr. Hoover was running his election campaign for the presidency, and apparently Brazilian opinion was in his favour; his recent utterances were interpreted as a sign that he now knew that he had been wrongly advised in 1925, and had accordingly come to see the error of his ways, while his support of prohibition was a powerful factor in his favour, on the ground that the prohibition of alcohol stimulates the consumption of coffee, a conclusion which is certainly correct in so far as the United States is concerned. Brazilian coffee defence did not, therefore, encounter any appreciable resistance from consumers in the United States, and the same is true of Europe, for though certain countries increased their tariff on coffee, this was part of a general movement and was in no way retaliatory in character. It seems indeed worth while to observe that a debtor country is in a much better position than a creditor country to operate an artificial control scheme on one of its main exports so far as consumers' opposition is concerned, and providing that its creditors are numbered amongst the consumers of the product concerned. For if the creditors retaliate as consumers, they may well tend to injure their interests as creditors. Argument was frequently heard in Brazil to the effect that the U.S. had such large investments in Brazil that Brazilian prosperity was worth high coffee prices, while there seems little doubt that, since the crash, bankers, both in London and New York, have been very liberal to Brazil, in part at least because of

the necessity of safeguarding existing investments.

This summary will now be closed, and the author may perhaps be allowed to express the hope that it will be considered as a means to a better perspective, and as a guide rope amidst the more detailed narrative with its frequent excursions on debatable issues, which will now be presented, rather than as being sufficient in itself even for the reader who is not directly interested in the fortunes and problems of the coffee industry.

In the previous section it was stated that the history of coffee defence, as distinct from isolated attempts at valorisation, really begins in 1921. Its beginning, however, coincides with the third valorisation scheme, and as this was largely run hand-in-hand with the defence scheme for a couple of years, it is necessary to consider it in slightly greater detail than the two earlier valorisations. The situation which led to the third valorisation scheme was primarily caused by the onset of the post-war slump in the United States and by the world-wide deflation of prices: it was not an attempt to meet difficulties arising from a bumper crop, still less from any excess of capacity, and it is therefore fundamentally different from the two previous schemes. Demand had begun to flag towards the end of 1919, and the flowering of September 1919, which promised a crop slightly above normal * in 1920, had caused a sharp break in the price from a 30-cent to a 25-cent level. During the first half of 1920, demand began to decline more rapidly,† but there was no further definite break until the post-war slump struck the United States in July and August. The price of coffee then fell abruptly to 15 cents, and by the end of the year stood at less than 10 cents. For such an overwhelming collapse there was no adequate cause so far as the statistical position was concerned. It is true that exports from Brazil in 1920 amounted to only 11.5 million bags as against a crop of 14.5 million bags, but the world's visible supply on July 1st, 1920, was less than 7 million bags, as compared with a pre-war normal of 10 million bags: there was thus no development on the supply side to account adequately for such a terrific fall in the price. The trouble was that United States' buying virtually stopped in August 1920, just when the new crop was being pressed on to the world's markets. In the financial conditions of the moment, nobody was prepared to make even the smallest speculative purchases of the momentarily unwanted supplies, and so the price fell, and continued to fall in a way which suggested that no one would be tempted to buy even if it reached zero.

In November 1920 the São Paulo Government, therefore, felt constrained by sheer necessity to enter the market and buy what it could,

* The 1920-21 crop was 14.5 million bags for all Brazil which was little more than normal, though the yield in those districts which had suffered least from the 1918 frost was considerably above normal.

† Not only the U.S. demand, but also the European demand, as Germany and other countries placed restrictions on the importation of coffee in an endeavour to remedy unfavourable trade balances.

namely, about 300,000 bags. This helped to slacken the fall of prices, and in February 1921 there was even a small rise. But a heavy bear raid in March is said to have convinced the Federal Government that for the sake of exchange,* if nothing else, it must reinforce São Paulo's efforts, while the success of the 1917 valorisation had, of course, considerably changed the Federal Government's ideas as to the merits of valorisation schemes. By what amounted to an issue of paper money through the newly-created Rediscount Section of the Banco do Brasil, the Federal Government began in March to buy coffee in large quantities. price steadied, and in August 1921 began to rise slowly but surely, for demand was reviving exports in 1921 at 12.4 million bags eventually showed an increase of nearly I million bags on 1920—while the 1921 crop, though not as small as had been hoped, was less than 13 million bags. By November 1921 the price had been raised to 12 cents, and there was every sign that such a price level would at least be maintained, for the Federal Government had bought virtually the whole of the existing surplus supplies, and now held no less than 41 million bags. The process of valorisation had thus been successfully accomplished; there remained the much more difficult task of liquidating such a huge purchase. The work of buying had been entrusted to a Brazilian firm. But this firm had little or no experience of export business, and insufficient connections in consuming markets to enable it to undertake the work of selling. Moreover, the outlook was such as to suggest that the liquidation must necessarily be a very protracted affair, and the Federal Government was thus faced with a most difficult financial problem: obviously it would be an extremely convenient solution if a foreign loan could be secured for a number of years, as had been done in the valorisation of 1907. It is therefore not altogether surprising that the Government decided to entrust the task of liquidation to the Brazilian Warrant Company. In the first place, the selection of a foreign firm would not occasion the same heart-burnings which would have been roused by the selection of a Brazilian firm for what would obviously be a lucrative task. Secondly, the selection of an English firm would obviously be viewed with favour in London, and any loan was more likely to be obtained in London than in New York, if only because of the difficulties which the United States anti-

* Exchange on London fell from a peak of 18.37 pence in February 1920 to 9.93 pence in February 1921.

trust legislation had created in 1911. Thirdly. the Brazilian Warrant Company itself, and through companies closely associated with it. had the necessary organisation and highly skilled staff both in Santos, and also in consuming centres. Negotiations appear to have been opened with the company at the end of 1021, and during the spring of 1922 a combined effort was made to secure the co-operation of London bankers, with a view to the arrangement of the long-term finance which was deemed so desirable. Eventually the Federal Government's "official" bankers. Messrs, Rothschild, in conjunction with Messrs, Baring and Schröder, were persuaded to undertake the liquidation of the whole stock of coffee over a period of ten years. The bankers accordingly floated the U.S. of Brazil Coffee Security Loan * of fo million in May 1922, and the Federal Government was most thankful to be relieved of all its heavy liabilities, for even now, in May, the statistical situation was thought to be none too promising. The 1922-23 crop was somewhat over-estimated until later on when the picking was well advanced, but even the correct figure of 10.2 million bags, together with the 4.5 million bags of Federal stocks, totalled 14.7 million bags, while in 1922 exports had been only 12.7 million bags. Moreover, the dry autumn of 1921, which was the primary cause of the very short crop of 1922, had been followed by such copious rains as to suggest a very large crop in 1923, as was indeed to be the case.

The doings of the Federal Government, however, were viewed with considerable indignation in São Paulo, and to a lesser extent by Brazilians generally. Brazilian commissarios and exporters in Santos were for once united in their anger that a foreign firm should have been given a monopoly of the disposal of such a huge quantity of coffee: the commission to be earned should have been kept for Brazilians and not given to a foreign competitor. Market gossip said that the Brazilian Warrant Company had undertaken to buy coffee on its own account in return for the privilege which it had secured, and was manipulating the market to its own pecuniary advantage. Thus in a résumé of valorisation history by Senhor Carl Hellwig, published in the Medeiros Bulletin during the autumn of 1930, it is stated that by November 1921 the Federal Government had bought 3 million bags, and that then the "English group" purchased a further 1.2 million bags

in November and December 1921, thus raising the price; subsequently it "liquidated its position," after which further purchases were made in March and April 1922. But there is no evidence whatever to suggest that the Brazilian Warrant Company ever purchased a single bag for the Federal Government: the whole 43 million bags had been already bought by November 1921, that is, before the Brazilian Warrant Company comes into the picture, and not a single bag was sold until after the conclusion of the fo million loan in May 1922, though a consignment of about 500,000 bags was shipped to London in order to satisfy the bankers, who at first would not give credits against coffee stored in Brazil. Equally there appears to be no foundation for Senhor Hellwig's further suggestion that the Federal Government contracted the fo million loan in order to "free themselves from the interference and machinations of the English group." All the evidence available goes to show that the Brazilian Warrant Company were mainly instrumental in securing the co-operation of the bankers, while it is difficult to understand how the Federal Government was freeing itself by agreeing to a loan, of which one of the terms was that the Brazilian Warrant Company should carry out all defence operations on behalf of the Federal Government throughout the ten-years period of the loan. Senhor Hellwig's account should be treated by the historian with considerable caution,* but of one aspect there is little doubt, namely, that his attitude accurately represents the general feeling on the matter in Santos, and even throughout the State of São Paulo, both at the time and even to this day. The Federal Government in their view had not only put money into the pockets of a foreign firm which might just as well have gone into Brazilian pockets, but it had virtually handed over the whole fortunes and future of the coffee industry itself into the hands of foreign bankers and merchants, whose interests would lead them to oppose the new policy of permanent coffee defence for which São Paulo was pressing. It is indeed necessary at this point to retrace our steps in order to observe the birth of that project.

The Federal Government, as has been said above, began buying coffee in March 1921. In October 1921 a measure was introduced into Congress which sought to establish a permanent valorisation or defence scheme. This measure, after prolonged debates, was finally passed into law on June 19th, 1922, i.e. soon after the £9 million loan had released the

^{* £7} million of the loan was placed in London at an issue price of 97, interest $7\frac{1}{2}$ per cent., and amortisation over thirty-three years. The remaining £2 million was placed in New York.

^{*} His account of the two previous valorisations, however, contains many interesting points and merits attention.

Federal Government from its direct liabilities on the stocks purchased during 1921. The law authorised the creation of an Institute for the Permanent Defence of Coffee. Institute was to be governed by a council, composed of the Federal Minister of Finance as President, the Minister of Agriculture as Vice-President, and five other persons appointed by the President of the Republic, to be chosen from persons of noted capacity in agricultural, commercial and banking business. The Minister of Finance, or in his absence the Minister of Agriculture, was to have the power "deliberations contrary to the of vetoing express dispositions of this law." The Institute's functions were to be-

(a) To lend money on reasonable terms against coffee deposited in official warehouses.

(b) To purchase coffee when the market

appeared to require temporary relief.

(c) To conduct propaganda to increase the consumption of coffee and to repress substitutes.

The Institute was to have an initial capital

of 300,000 contos.

This scheme represented the accumulated experience and the current desires of the São Paulo planters and the State Government. But the law of June 19th, 1922, does not include what was really the most fundamental method of defence, namely, the regulation of daily entries into Santos and Rio. The Federal Government had taken powers for this purpose in 1921, and the crops of 1921-22 and 1922-23 had both been allowed to enter Santos only in regular quantities spread over each crop year, though no attempt had been made to hold back and carry over any part of these crops into the next year. The new Institute was to operate against this background of control, and its function (a) above was to provide finance to reduce the strain which this regularisation of supplies over each crop year had placed upon the planter. The surplus of a large crop was to be purchased in the market, and held by the Institute itself, and it should be noted that at this time the idea of the planters was undoubtedly limited to storage over a relatively short period, i.e. the carrying over of the surplus of a bumper crop to make good the deficiency of the short crop which invariably followed. This was as far as the general opinion of the planters had so far travelled. They wanted to regularise supplies over short periods, they wanted financial assistance to be provided to make this possible without straining their cash resources, they wanted the Institute to take over the rôle of the merchant speculator, they wanted any surplus stocks to

be held within Brazil because experience had clearly shown the drawbacks of holding such stocks near consuming centres, and finally they wanted the Institute to be wholly free from reliance on foreign capital, with the element of foreign control and the lion's share of the profits to the foreigner, which such reliance seemed to involve. All this, but no more, was embodied in this original scheme for the defence of coffee, and it may be observed that if this scheme had been put into operation in this, its original, form, things would almost certainly have gone considerably better than they have.

Little, if any, action appears to have been taken to put the scheme into execution during the next three months, and then for a time attention was diverted by the revolution in the autumn of 1922. Subsequently Dr. Bernardes assumed office as Federal President. Very considerable importance attaches to this event. for the new President was a Minas man, and as such he was no active supporter of artificial control schemes for coffee, if indeed he was not from the start secretly determined to bring to naught the schemes of the previous regime at the earliest possible moment. He appears to have refused to put the defence law into execution. He may have been opposed in principle to the idea of market intervention, but his real objection probably arose from the now virtual certainty of a bumper crop in 1923–24. If the Institute was itself to buy and store the surplus, large funds would be required, and since foreign borrowing for such a purpose was now so unpopular, such funds could only be provided by further issues of paper money, which would bring to naught the central policy of his administration, namely, the burning of existing notes as a means to restoring the rate of exchange. On the other hand, it was clear that if the prospective bumper crop was allowed to come freely on to the market, there would be another serious fall in the price, which would make extremely difficult not only the successful liquidation of the valorisation stocks, but also the restoration of exchange. Control in some form was virtually unavoidable, and President Bernardes appears to have concluded that control by regulation of port entries was less objectionable than market intervention, and much easier from his point of view. Accordingly, in the spring of 1923 he ordered the construction of eleven warehouses in the State of São Paulo with a storage capacity of 3.5 million bags. His scheme was to allow the planters to ship their coffee to these regulating warehouses, from which deliveries to Santos would be authorised at whatever rate the market would absorb coffee, any surplus being carried over into the following crop year. He made no special provision for financing, trusting that the ordinary banks would be able to discount the planters' bills of lading, at least to the extent necessary to enable them to obtain their immediate minimum requirements of cash. The management of the scheme and the control of port entries were to be performed directly by the Federal Govern-The law of June 19th, 1922, was thus in effect replaced by a scheme of which the central principle was radically different. Defence was to be conducted through the limitation of port entries, and not by market intervention: the farmer was to bear the risks of the defence operations, not the Federal Government, as would really have been the case under the Institute scheme, and the farmer was therefore to receive the whole profits. This last aspect of the matter appealed strongly to the planters, who were now absolutely convinced that artificial control was bound to be profitable, and for a time São Paulo was reconciled to the shelving of the original scheme for the Institute, and almost prepared to believe that after all the Federal President was not their sworn enemy.

These plans for Federal defence, however, were at first blocked by the liquidation scheme of the £9 million loan, and in particular by the clause in the loan contract, which "for the term of ten years permitted the Government to defend coffee only through the firm entrusted with the liquidation of the stocks . . . " *i.e.the Brazilian Warrant Company. It is possible that President Bernardes would have liked to make the claims of the English company an excuse for avoiding any further measures of control, but there is no definite evidence in support of such an idea, and in any case popular opinion, especially in São Paulo, was too strongly incensed at what seemed to them the growing domination of their internal affairs by foreign interests, and too keen on the new scheme of defence which would retain for Brazil and Brazilians the full benefits of the success which was considered certain. On the other hand, President Bernardes wanted to see the end of all artificial control, and if he had upheld the claims of the Brazilian Warrant Company, he would not have achieved his ultimate purpose. Fortune enabled him to avoid the dilemma, in a way which would please the Paulistas, and at the same time free his own hands from the bonds of the fo million loan scheme: with his hands free he might hope to outmanœuvre the Paulistas in the end, as indeed he ultimately did. For the ink was hardly dry on the £9 million loan contract before the statistical situation began to change for the better as the result of an improving demand. It is impossible to trace the situation in detail month by month because the 4.5 million bags held by the bankers are not fully represented at any one time in the visible supply statistics. Thus on July 1st, 1922, the visible stocks in Brazil were 4.1 million bags, and this includes the normal stocks of convenience at Santos and Rio, which amounted to well over I million bags: the explanation is, of course, that only part of the valorised stocks were held in Santos at this time, the remainder being held in São Paulo City warehouses and elsewhere up-country. Probably the bankers' committee adhered to the original programme of liquidation over ten years (i.e. at the rate of 453,000 bags a year) until February or March 1923, by which time demand was increasing very rapidly, and it was clear that unless these valorisation stocks were made available, there would be an acute shortage at the end of the crop year and until the supplies of the 1923 crop became available, for stocks in consuming countries were such that not more than about I million bags at the most could be conveniently spared. Such a shortage, with its accompaniment of very high prices, would, however, inevitably be followed by a period of very low prices, for the 1923 crop was obviously going to be far in excess of any possible requirements. If stabilisation of prices was the aim and object of the Federal Government, it was obviously desirable that the valorisation stocks should now be made available to bridge the gap before the coming crop brought ample supplies. Equally from the point of view of the bankers, it was obviously desirable to liquidate as rapidly as possible, provided this could be done at a profit, and the present price of 15½ cents ensured this, for the bulk of their coffee had been purchased at a 9-10 cent level: otherwise, with a big surplus from the next crop, no one knew what the future might hold.

According to the Federal President, the initiative came from his side:—"The stock of coffee guaranteeing the loan of £9 million was to have been sold according to contract in lots of 453,000 bags per annum during the term of ten years. This situation not conforming with the interests of Brazil, we obtained from the bankers the immediate liquidation of this stock." It hardly seems likely, however, that the bankers raised any objection to a course which was so eminently desirable from their point of view. The decision was probably taken about February, but this is only a

^{*} Quotation from the Federal President's Annual Message to Congress in 1924.

deduction. The essential point is that by the end of 1923 practically the whole of the stock had been disposed of. The operation was conducted with great skill, and though during July and August * the price fell appreciably, owing to the certainty of a bumper crop and the uncertainty of the Federal President's defence policy, by the end of the year it stood at the same level as it had been at the beginning, and a further rapid rise was under way. The course of prices, however, was also influenced by the Federal Defence scheme, to which we must now return. So far as the valorisation scheme of 1921 was concerned, the proceeds of the sales during 1923 enabled the Federal Government, through the bankers, to buy up most of the loan certificates and to acquire English 5 per cent. notes, which were deposited in London, sufficient to provide for the payment of the interest coupons during the term of the loan on the remaining certificates, as well as for their ultimate redemption. The 1921 valorisation was therefore superficially a great success. Brazil, and in particular São Paulo, reckoned this third success as conclusive proof of the advantages of artificial control, and the only fly in the ointment was that the cash profits had so largely been diverted to the foreigner.

At first sight the rapid rise in prices during the 1923-24 season seems extraordinary, since it was known from the beginning that this crop would largely exceed any possible requirements for consumption. During 1923 the upward movement was damped down by the liquidation of the valorisation stocks, but when this was virtually completed, prices shot up in an extraordinary fashion, as the following table

MONTHLY AVERAGE SPOT PRICE FOR SANTOS 4's IN NEW YORK

shows:

Cents per lb.

- Anti-Contract of the Contract of the Contrac	1924	January February March	18·34 20·18	1924 July August September	21·63 22·81
-		April	19.13	October November December	27.03

It will be seen, however, that the rapid rise during the first three months of the year was followed by three months of even slightly declining prices before a further rapid rise took place in the second half of the year. This suggests what is the case, namely, that there were two distinct periods of rising prices due to two different causes. The rise in the spring

may be described as the result of a fight between Brazil and consuming markets. On July 1st, 1923, the visible supplies of the United States and Europe together totalled only 3.3 million bags, as compared with 4.2 million bags at the beginning of the year.* Thanks to the liquidation of the valorisation stocks, this total was increased to 4.2 million bags in November 1923, but from that date it fell to only 3 million bags in April 1924, after which there was a slight rise, and the figures then settled down between $3\frac{1}{4}$ and $3\frac{1}{2}$ million bags. The rapid rise in price during the first three months of 1924 was due to an attempt by consuming markets to rebuild their stocks, and thus wrest from Brazil the control over price which she was exercising through the regulation of port entries. Presumably New York hoped that higher prices would tempt Brazil to sell more freely, but Brazil fully appreciated the object of the manœuvre, and continued to restrict supplies to the minimum requirements of consumption. By allowing their stocks to run down to a bare level of convenience, under the belief that ample supplies would be forthcoming with the 1923 crop, and by failing for six months to believe that under the new scheme of control Brazil could hold back any really large surplus, consuming markets simply played straight into her hands. Once Brazil had obtained an effective control over the price, she was not going to be tempted into sacrificing it for a mere temporary gain. By April, consuming markets realised that they were beaten, at any rate on this first round, and so they settled down to the hand-to-mouth buying policy which was thus forced upon them, much to the jubilation of Brazil.

The rise in prices during the latter half of the year was in a sense more genuine. The 1923-24 crop had totalled 19.5 million bags, and the 1924–25 crop was II million bags. 1923 exports had amounted to 14.5 million bags, and up to the middle of 1924 this rate was being more or less fully maintained. Thus over the two seasons the supply totalled 30.5 million bags and the demand 29 million bags: in view of the low level of visible stocks, Brazil could obviously take care of any such small difference. By the middle of 1924, therefore, it became clear not only that the defence scheme would successfully liquidate the surplus of the 1923 crop, but that there would hardly be sufficient coffee to meet the requirements of consumption. Every roaster wanted to ensure his own supplies, and such coffee as Brazil offered was eagerly bought at higher

^{*} It appears that the bankers' committee for a time discontinued their sales altogether.

^{*} It may be observed that in pre-war days 8-9 million bags was considered normal.

and higher prices, and at least some rise in price appeared justifiable from the long-period point of view, in that Brazil's capacity for production seemed barely sufficient, and there-

fore new planting must be stimulated.

Even before this second rise began, however, President Bernardes had come to the conclusion that with a price level of nearly 20 cents the coffee industry was hardly in need of defence, and could safely be left to enjoy prosperity on its own. The successful liquidation of the valorisation stocks had freed his hands,* and he felt that he could now take a strong line. Paulista opinion, however, interpreted the favourable conditions of the moment in the very opposite way: artificial control was confirming even the highest expectations of its supporters, and to throw away in the very hour of victory the weapon which had brought success, seemed sheer folly. At the same time, the São Paulo planters had become more and more convinced that some definite provision of special financial resources was extremely desirable, if not absolutely necessary. The planters had found it most difficult to obtain adequate advances to meet their cash expenses during the period in which their coffee was detained at the reguladores. On July 1st, 1924, the carry-over in São Paulo amounted to 4.6 million bags: in other words, more than one-

quarter of their crop was still unsold. Many of them had been hard put to it to raise sufficient cash. The resources of the ordinary banks had been hardly adequate, and the planters did not much like the prospect of facing in the future another crop so large as that of 1923, while obviously even larger crops were possible. The Paulistas, therefore, while completely convinced as to the merits of artificial control, felt that the present system of control was inadequate, and would be much improved if the original scheme embodied in the law of June 19th, 1922, were to be grafted on to it.

President Bernardes would have nothing to do with such proposals. Negotiations and discussions took place at almost interminable length throughout the summer and autumn of 1924. To a large extent, it was simply a struggle between São Paulo and the Federal Government as to which party should carry the baby, for it was perfectly clear from the start that São Paulo would never let it drop: on the other hand, if the Federal Government could be made to act as nursemaid, so much the better. But a bargainer in such a position is necessarily weaker than his opponent, and President Bernardes, appreciating this, remained adamant. Eventually São Paulo gave in, and by Law No. 2004 of December 19th took the child into her arms. There it was to remain for some six years until those arms were broken, and the Federal Government was forced with sorrow to resume the burden.

^{*} With the completion of the liquidation, the Brazilian Warrant Company's contract for Federal coffee business had automatically terminated.

II.—COFFEE DEFENCE UNDER THE LEADERSHIP OF SÃO PAULO. 1925-1929

A. THE PERIOD DECEMBER 1924-OCTOBER 1926

In its decision to take over the defence of coffee, now that the Federal Government was no longer prepared to carry it on, the São Paulo Government undoubtedly had the warm support of public opinion in the State. But this reference to " public opinion" is liable to some misunderstanding by anyone not familiar with the local background conditions in São Paulo, and as the history of coffee defence now becomes so intimately bound up with the internal affairs of that State, it seems desirable to attempt a

brief summary.

In São Paulo there are really two distinct classes of coffee planters. One class consists of the hereditary owners of large fazendas, who much prefer the comfort and pleasures of a city life, enlivened by some dabbling in politics, to the relatively dull monotony of life in the country. Even if a successful planter himself prefers a country life, the odds are that his wife and daughters will give him little peace if they think he can now afford to live in São Paulo city, or to make an annual or biennial trip to Europe. City life in Brazil with its temptations of gambling, political intrigue of a major or minor order, and general pleasure-seeking, not to speak of prolonged visits to Europe, is expensive, and at the same time the income available is not what it would be if the fazenda was continuously under the personal management of the owner, instead of being left for nine months in the year to the tender mercies of a usually low-paid and often unintelligent manager. Moreover, the effects of this lack of supervision tend to be cumulative as the years go on, while in many cases the steadily increasing age of the coffee trees is a further factor making for smaller profits. But even when the fazenda yields what would be regarded on London Stock Exchange standards as a highly remunerative return, these men are always desirous, one might almost say in need, of more money: the educated Brazilian is not by nature a consumer whose wants are easily satiable, and even coffee cannot make him a millionaire if he always spends every penny as he receives it.

The other class of coffee planters is a complete contrast. It mainly consists either of men with small fazendas whose ambition is as yet confined to securing a livelihood, freeing themselves from debt and expanding their holdings, and of men who have passed this stage but who still have their fortunes to make. includes also a sprinkling of rich men who are

by nature agriculturists, and have no other interests. Numerically * this class is far more important than the former, but they are too busy or too isolated to have a collective voice of their own, and they count for next to nothing in the political circles of the capital. Though as farmers they might belong to one or other of the three agricultural organisations which used to exist until the recent amalgamation, these organisations were largely under the thumb of their more politically-minded brethren. It must not, however, be supposed that the latter are the politicians of São Paulo. On the contrary, politics throughout Brazil is a separate and welldefined profession, which has its own exclusive sphere of activity. The political leaders are far from being the puppets of what may be termed the "political planters," but at the same time no Paulista Government can remain in power unless it possesses and retains the latter's confidence and approval. The feelings of the "farmer planters" may be very different from those of the "political planters, but they can be disregarded with complete impunity. On the other hand, the word of the "political planters" "goes," or else the Government goes in the near, if not necessarily the immediate, future.

The statement that the assumption of coffee defence by the São Paulo Government was supported by Paulista public opinion really means, therefore, by the opinion of the political class of planters. In itself it implies nothing as to the feelings of the much larger class of farmer planters. But on this occasion it is probable that the latter were in the main pleased, at any rate acquiescent. Some of them, even now at the start, disliked the additional powers which would thus be given to the politicians: they had been doing very well, and they feared trouble ahead in some vague form, or at least that their own interests might be subordinated to the interests of those who were in closer touch with the capital and therefore the Government. But it must be remembered that the political planters are the traditional leaders of the coffee industry, and the farmer planters had at that time a tolerable confidence in their general wisdom and guidance of affairs, while on this particular issue, valorisation had been successful on all three occasions in the past, and it seemed absurd for São Paulo not to avail itself of such an instrument even if the Federal President

^{*} For the distribution of fazendas according to size, see Appendix, Table X: the very large number of relatively small holdings is in striking contrast to the few big ones.

thought that the risks outweighed the possible gains to Minas Geraes and the other States. There was therefore general approval of the Government's step, but this must not be allowed to obscure the point that it was the political planters who instigated it. They believed that by averaging out large and small crops over two or three years the ruinous slumps of the past would be avoided, and that greater price stability would more than compensate them for the small additional costs involved; they would therefore receive the larger net income which each and all required. The politicians acquiesced in their demands, and inaugurated the Institute, in general because they knew that if they refused and coffee prices subsequently slumped, their days of office would be strictly numbered, and while undoubtedly some were genuinely convinced of the virtues of control, others without much more doubt secretly welcomed the opportunities of personal enrichment which the proposed scheme would

provide. Such was the background when the São Paulo Institute for the Permanent Defence of Coffee was created by Law 2004 of December 19th, 1924. The administration of the Institute was entrusted to a Council composed of the Secretary of Finance as President, the Secretary of Agriculture as Vice-President, together with two persons nominated by the coffee industry of the State, and one by the Commercial Association of Santos, who were to be appointed by the President of the State in accordance with regulations to be laid down. The immediate functions of the Institute were to be the regularisation of Santos entries, and the arrangement of a convention with the other coffee-growing States whereby they also should impose a coffee transport tax of I gold milreis (27d.), similar to that now enacted in the State of São Paulo: this tax was later to serve as the basis for a loan to provide a fund for the permanent defence of coffee. After this fund had been organised, the Institute was also (a) to make loans, through a bank to be established for the purpose with the aid of the fund, to interested parties, the loans being secured by coffee deposited in the State regulating warehouses; (b) to purchase coffee in the Santos market, or in the interior, in order to withhold it from sale whenever the Council considered this necessary in order to regularise the supply, and (c) to institute a service of information, coffee statistics, and propaganda to increase consumption and prevent adulteration. In other words, the São Paulo Institute was to be modelled on essentially the same lines as the abortive scheme for a Federal Institute.

Detailed regulations as to the incidence and method of collecting the tax, the methods by which the Council should be constituted and should conduct its business, and the internal organisation of the Institute, etc., were issued by Decree No. 3802 of February 14th, 1925.

For reasons which will become clear in due course, the month of October 1926 was a turningpoint of a well-marked kind in the history of coffee defence, and it will therefore be convenient to consider first the period from December 1924 to that date. This was essentially the formative period when the Institute was as much occupied in building up the whole edifice of control outlined above, as it was in the actual execution of current measures of control. These alone need be considered at the moment. Broadly speaking, the operations of the Institute were of two kinds only: the regulation of Santos entries, and market intervention. These two weapons constituted the defence of coffee until about October 1926, and all the remaining energies of the Institute were concentrated on the task of securing a foreign loan on the guarantee of the transport tax, for the scheme could not in practice be commended to other Brazilian States until its permanent character was assured by the demonstration that capital could be borrowed on this security. In this respect São Paulo encountered something of a stumbling-block in the attitude of Mr. Hoover, as Secretary of Commerce of the United States, and consequently the formative period was to some extent prolonged. Eventually the required loan was contracted in London on January 2nd, 1926, but this whole issue of finance does not really belong to this period, and can for the moment be disregarded.

There appears to have been little or no interruption in the regulation of the entries into Santos during the transition from Federal to Paulista control, but I have not been able to secure precise details as to when or how the actual transition took place. In its monthly bulletin the Institute has published a table of the permitted entries beginning in May 1925, but it seems improbable that the Federal Government continued regulation until so late a date. Fortunately the point is not of importance. Suffice it to say that regulation was continuous, and that when the Institute took over the task, it continued the same arbitrary form of regulation, fixing the daily quota at whatever figure it saw fit in the existing state of Santos stocks and prices. Santos traders knew each day how much coffee had arrived, but no one knew whether the amount would be different on the morrow. This purely arbitrary system was obviously an immensely powerful weapon of control from the Institute's point of view, but it was nevertheless thought necessary, or at least desirable, to reinforce it by market operations. No detailed account of the use of this second method of control can, of course, be given, nor is it even possible to assess its importance as a factor in the results achieved. Before the São Paulo Institute began operations, the way had already been made more smooth and certain, because the earlier interventions of the Federal Government, possibly in conjunction with the London Bankers' Committee, had frightened the private speculator out of the market to a considerable extent, though there was from time to time a good deal of activity by persons who were supposed to have inside information from the Institute. Further, the professional merchants and traders always knew when the Institute came into the market, at least when it did so in an open and more or less official manner, and promptly curtailed their operations as much as possible. Hence a comparatively small purchase would usually have a disproportionately large effect on the price, but even so it seems at first sight difficult to understand how the slender financial resources of the I milreis gold transport tax sufficed for operations of any significance, especially in view of the many other demands on its proceeds. If such a question is put to Santos exporters, they unanimously offer the explanation that when a seller tendered coffee in fulfilment of a purchase contract by the Institute, the official graders of the Bolsa turned it down as not complying with the contract specifications. The Bolsa is, of course, under the control of the Government. The allegation may seem at first sight so fanciful as to be an imaginary grievance on the part of a losing party, but the unanimity of the evidence is so complete, and is supported by so many other persons not directly affected, that one is compelled to accept its validity, while it must be remembered that to the Brazilian the foreign speculator is the embodiment of all evil, an adversary to his country and to his own pocket, against whom the use of any weapon is perfectly justifiable. For these first two years the Institute was thus able to intervene in an effective manner with little or no capital expenditure, and little or no risk. Further aspects of this matter will be considered later.

The Institute, therefore, was exercising control by the use of two weapons, market intervention in the very short period, and regulation of entries in the longer period: being in the same hands the one weapon could be used to supplement the other, like a dagger and a sword. The results must now be summarised. The spot price for Santos 4's on the

New York market averaged 26.68 cents during the month of December 1924, when São Paulo took over the defence: for January 1925 the average was 28.35 cents. a figure never exceeded before or since. From this very high peak, a long and more or less steady decline ensued throughout the period under consideration; its order of magnitude may be judged from the following summary table:

MONTHLY AVERAGE SPOT SANTOS 4's NEW YORK

	Cents per lb.		
	1924	1925	1926
1st half-year 2nd half-year	18·68 23·95	25·68 23·41	23-10 21-49

This peak at the end of 1924 and the beginning of 1925 was mainly due to the short crop of 1924-25, which for all Brazil amounted to only II million bags, combined with the low level of visible supplies at approximately 5 million bags. As regards interior stocks in São Paulo, we know that the carry-over of the large 1923-24 crop amounted to approximately 4.6 million bags, and that a year later (i.e. July 1st, 1925) the carry-over was only 1.9 million bags; but since monthly figures are not available for this period, we do not know exactly when and how these stocks were put on the market; probably it was a more or less even process. With the beginning of 1925 the situation was relieved by the arrival of the new mild crops, and consequently prices eased. It is worthy of note that world absorption* declined from 22 million bags in the season 1923-24 to 20.5 million bags in 1924-25, which is reflected in the fall of Brazilian exports from 14.2 million bags in 1924 to 13.5 million bags in 1925. The arrival of the Brazilian 1925-26 crop of 15.1 million bags resulted in a continued decline of price, despite the fact that nearly I million bags were retained (making the carryover at July 1st, 1926, a total of 2.8 million bags), and despite the none too good prospects for the 1926-27 crop, which eventually amounted to only 14.7 million bags.

At first sight this continuous decline in the price may seem a poor result for the Institute's efforts. But it must be realised that a price level of well over 20 cents. was a very high price level, and at that time allowed a very large margin over costs, even though the yield of the trees was somewhat sub-normal. Even the

^{*} I.e. exports modified by changes in visible stocks: there is little probability that physical consumption declined at this period.

most ardent Paulistas could not expect to hold the price at the 28 cent. level ruling when the Institute was established! In the eyes of the roaster the situation appeared entirely different: the Institute seemed to him responsible for the long-continued maintenance of extravagantly high prices, and he was proportionately loud in his condemnation. Actually it may be doubted whether over the period as a whole the Institute's control had much effect on the general price level. The central fact is that the total supplies forthcoming in the four years 1923-24 to 1926-27 were barely equal to the world's requirements, and that since visible stocks from July 1923 onwards were at no more than a bare level of convenience, the general price level was If there had been no control by naturally high. Brazil, the large crop of 1923-24 would have brought about very low prices during the latter part of 1923,* and subsequently if the merchants had added the whole of their surplus stocks to the short crop of 1924-25, the price would have been little more than normal for a period. But the next two crops would have afforded no surplus wherewith to build up the depleted visible supply to a more comfortable figure, even assuming that consumption would have been no larger than it actually was, and therefore it is reasonable to suppose that the price level would have ruled high in order to encourage the additional supplies which seemed to be genuinely required. By carrying over the surplus of the large 1923-24 crop against the following short crop, Brazil succeeded in more than maintaining the price throughout the glut period, just as the advocates of coffee defence had always promised, and the next two crops naturally resulted in a high price level for the reasons given above. The only real element of valorisation, in the sense of a raising of price above the natural equilibrium, was the holding back of the I-9 million bags interior carry-over on July 1st, 1925, and its increase to 2.8 million bags on July 1st, 1926. Little fault can be found with the first point, especially in view of the low level of visible stocks, but the further addition during 1925-26 may be criticised as an act of definite valorisation. If this extra I million bags had been sold, the price would have declined further, but there would have been no break to an altogether lower level. The Institute of course accumulated these additional stocks because the price decline, which actually took place, was superficially no very good advertisement of the virtues of defence. Apart from this, coffee

defence in these years again meant simply regularised marketing, as it had done under Federal control, and the general price level was high, not because of the virtues or iniquities of the Institute, but simply because supplies were short.

Though for convenience of exposition the period of Federal control from 1920 to 1924 has been considered separately from the following two years of control by the São Paulo Institute, on economic grounds there is no justification for treating the whole period from 1918 to 1926 other than as an indivisible whole, for these eight years are strongly characterised by an overpowering common factor, namely, the results of unfavourable weather. Too much importance can hardly be attached to the results of the calamitous frost of 1918 in São Paulo. In the first place, it severely damaged the large part of the current crop which was still unpicked. but this has no lasting significance. Secondly, it resulted in the smallest of crops the following year, but that again has no lasting significance, though it carries the catastrophic effects over two years. In 1920-21 São Paulo produced a more or less average crop of 10 million bags, and since large numbers of trees had been killed outright, even trees in bearing as well as young trees, this means that those trees which did bear gave a more than normal yield. This over-taxed their reviving vigour, and resulted in a subnormal crop in 1921-22, while the unusually dry autumn of 1921 resulted in a crop of only 7 million bags in 1922-23. However, the big rains which followed—rain being, so to speak, the best manure for coffee—paved the way for the bumper crop of 14.9 million bags in 1923-24. As usual, this meant a short crop to follow, and it was unusually short because the trees had not even yet built up their normal reserves, and were even more than normally strained by the big crop. Finally, the last two crops of the period (i.e. 1925-26 and 1926-27) were below average on account of drought.

The effects of the 1918 frost were undoubtedly felt right up to the large crop of 1923–24. But in a sense, and a very important and practical sense, the effects are still being felt to-day. The frost found the great Ribeirão Preto district, and the large district of the Araraquarense railway, at the peak of their productivity: in the one night, twenty years were added to their age, and they suddenly became, as it were, middle-aged producers. By 1923 they had more or less recovered, in the sense that they had become capable of bearing a heavy crop, and the careful cultivation which, as will be seen, was afforded them until 1929, further consolidated their recovery. But they are not even to-day the same trees as they

^{*} Normally the anticipation of such a large crop would have caused a fall in prices a year earlier, i.e. after the flowering in September 1922. But until the 1923 crop actually became available, there was such a shortage that spot prices at any rate could not have declined very far.

would have been if there had been no frost, just as men who in the prime of their strength are overtaken by a really serious illness are rarely the same men afterwards, even though they may recover a sufficiently robust physique for everyday workable and useful lives. With the most favourable natural conditions, recovery was bound to be slow, and in this sense incomplete. Actually, drought retarded their convalescence on more than one occasion, as noted above. The statistics of rainfall in the coffee districts of São Paulo, as compiled by the Meteorological Institute of the State, show that the average summer (i.e. October-March) rainfall during the six years 1919-20 to 1924-25 was very little under the average of the forty-one years for which records are available, but the rain came at the wrong time in some seasons, while in 1923-24* and 1924–25 even the total was abnormally small, at monthly averages of 960 and 786 millimetres as compared with the normal 1042 milli-There can be no question that the crops metres. of this eight-year period were short because the yield was low, and this was largely owing to the frost up to 1923-24, and then to two consecutive dry years. The validity of the statistics of the numbers of trees in bearing in the State of São Paulo is considered in the Appendix (see note 2 below Table VIII), but they are probably sufficiently accurate to support the general magnitude of the conclusion that, whereas for the period 1914-15 to 1917-18 the average yield for the whole State was 55 arrobas per 1000 trees, for the period 1920-21 (i.e. omitting the two small frost crops) to 1926-27 the average was only 40 arrobas. Weather conditions certainly played a far more important part in the creation and maintenance of the very high price level from 1924 to 1926 than the São Paulo Institute, and the same is true on a smaller scale of the previous years of Federal control.

These considerations also have an important bearing on the rate of new planting. On the assumption that the increase in any year is due to planting four or five years previously, the official statistics of the number of trees in bearing suggest that there was little or no new planting in 1919-20 or 1920-21,† but that in the next two seasons it was very large. This tallies with what might be expected on general grounds: during the first two years, the fazendeiros were too busy repairing the direct losses caused by the frost, and too poor to embark on extensions or the construction of new fazendas. By the middle of 1922 the price

of coffee was already remunerative, and since the practical fazendeiros at any rate realised the more or less permanent blow which the frost had struck, they concluded that new planting would be required to provide for the normal increase in consumption. Actually large new planting had been taking place in the mild countries, especially in Colombia, from 1918 onwards, and the pace quickened as the price rose, so that the future requirements of consumption were being largely met by producers outside Brazil. Brazilians may have realised the extent of this expansion in the mild countries, but they certainly did not realise at this time that the world would take a larger supply of mild coffees in preference to Brazilian coffees, even at a premium. The new planting in Brazil was not, however, so great as to create any serious prospect of over-production, and in 1924 and 1925 the rate appears from the statistics to have fallen off, as the following table * shows:

PROBABLE NEW PLANTING IN SÃO PAULO

1922–23 75·7 1923–24 29·3 1924–25 35·6
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This falling off in the last two years seems somewhat surprising in view of the high level of prices at the time. The statistics cannot, of course, be relied upon too closely, but at least it can be said that the decline is not inexplicable. The bumper crop of 1923–24 may well have caused many farmers to wonder whether, after all, the effects of the frost were going to prove as prolonged and permanent as they had expected. Further, $4\frac{1}{2}$ million bags out of a total crop of 15 million were still retained in the reguladores at the end of the crop year, and though the fazendeiros had been able to obtain advances on this surplus, this financing had to be performed entirely by the ordinary banks, since the Institute had not yet been able to obtain a loan and organise additional financial assistance: hence the amount of the advances was small, and the farmer was short of cash. Thirdly, though still high, the price of coffee was obstinately declining, and the efficacy of a defence policy by São Paulo alone was still a matter of doubt. There may have been more planting in these years than the available statistics indicate, but

^{*} Incidentally it may be noted, however, that there was an abnormal amount of rainfall while the crop was being harvested and a great deal of coffee was damaged on the terraces.
† The planting actually takes place in and around the months of December and January.

^{*} This table is based on Table VIII in the Appendix, p. 87, which gives statistics of the number of trees in bearing each year, using the assumption that the increase in any year indicates that amount of new planting five years previously. The accuracy of the statistics is considered in note 2 to this table in the Appendix.

on the other hand there is probably not much reason for such a supposition.* In any case, since the general price level was naturally, rather than artificially, high, the Institute cannot be said to be responsible for an undue stimulus to new planting during this period. Whatever new planting took place was the natural response to naturally high prices, and, from the point of view of the policy of defence as opposed to a policy of artificial valorisation, appeared as innocuous as it was inevitable.

This section may now be closed by a brief review of the fazendeiro's position during these vears. His profits were, of course, very large with such a high price level, but account must be taken of certain factors which modified and toned down an apparently super-prosperity. In the first place, the small crop of 1924-25 was very costly per unit, owing to its small size and to a rapid increase of wage rates, while the farmer also had to meet very heavy interest charges for advances on that part of his large 1923-24 crop which was still retained by the Institute. Secondly, the 1925–26 crop, though of roughly average size and therefore cost, was marketed at a milreis price which had fallen even more sharply than the gold price, and this is a situation which does not, of course, suit the planter, since his costs are in milreis, and are also more or less fixed over short periods. The course of the milreis price was indeed considerably different from that of the gold price owing to the vagaries of the exchange policy of the Federal Government. During the first half of 1925 the sterling exchange fell from 5.91d. in January to 5.13d. in May. The efforts of President Bernardes then resulted in a rise to 7.44d. in October, and though there was a slight reaction at the end of the year, the rise continued during the first half of 1926, reaching 7.78d. in June. Great difficulty was, however, experienced in maintaining such a rate, and in September it had fallen to 7.51d. Then came the announcement of Dr. Washington Luis, as President-Elect and about to take office, that he intended to reverse the deflationary policy of President Bernardes, and would concentrate all efforts on stabilisation around 6d. By December the rate stood at 5.87d. These fluctuations are reflected in the milreis price of coffee, which during 1925 fell in the ratio of 100 to 63, as compared with a fall of only 100 to 80 in the gold price. During the first three quarters of 1926 the two prices moved more or less together, the continued appreciation of exchange having presumably been discounted in advance. But the rapid fall of exchange during the last quarter of 1926 resulted in a rise in the milreis price from

* See note 2 to Table VIII in the Appendix, p. 87.

an average of 24\$400* for October to 28\$300 in December, as compared with a fall in the gold price by nearly 2 cents. The greater fall in the milreis price during 1925 means that some small discount must be made in reckoning the benefits of the high gold price to the fazendeiro. Nevertheless, he was faring sufficiently well in these years, better perhaps than was altogether good for him.

B. The Period October 1926-October 1928

As has already been remarked, the fourth quarter of 1926 marks the beginning of a new period in the history of the São Paulo Institute. In the first place, its constitution was revised. This was not the first occasion, for in December 1925 Law No. 2122 had changed the Institute's official title from "The São Paulo Institute for the Permanent Defence of Coffee" to "The State of São Paulo Coffee Institute," and Decree No. 4031 of March 22nd, 1926, had elaborated and clarified the previous regulations. But these earlier revisions concerned points of detail, whereas Law No. 2144 of October 16th, 1926, effected a general remodelling. Article I placed the administration of the Institute in the hands of the State Secretary for Finance, with the State Secretary for Agriculture as his deputy in case of absence or inability to attend. Article 2 provides for a consultative board, composed of the Secretary for Agriculture and "three members appointed by the President of the State from among persons of recognised experience in agricultural, commercial and banking affairs." This was the important change: the remaining articles merely confirm and consolidate the original scheme. Hitherto the Institute had preserved some pretensions to the character of a representative body, though the Secretary of Finance, as President, had always held a right of veto pending appeal to the President of the State. Now, even the nominative rights of the growers and the Santos commissarios were dropped, and even those persons whom the State President appointed were to serve only in a consultative capacity.† The State President publicly defended the change on the ground that since the State had guaranteed the £10,000,000 loan from London, this responsibility demanded unfettered control. But it seems clear that the original power of veto by the Institute's

† Some well-informed persons maintain that the President of the Institute never in fact consulted his official councillors

on any single occasion.

^{*} Official prices of Spot Santos 4's on the Santos, Bolsa. Owing to control by the Institute, these prices are often somewhat imaginary, and do not tally with the prices at which exporters are buying their actual requirements. But they reflect the general fluctuations sufficiently for most purposes.

President would have been sufficient for all practical purposes, unless there was some fundamental divergence of policy between the politicians and the business men. The only alternative explanation which I have heard is that the politicians wanted everything in their own hands for their own private purposes. On the whole, my personal conclusion is that in all probability there was a real divergence of policy, in that the politicians for political considerations felt that the long decline in prices must be arrested, even if that meant the retention of still larger stocks, while the representatives of the planters favoured a more rapid release, partly because they felt accumulation was unwise at the still high price level, especially in view of the prospect of a very large crop in 1927-28, and partly because they, and many of those they represented, were eager to get cash and unwilling or unable to arrange further financing of their retained coffee: the Santos commissarios would also reckon that larger releases would not depress the price by an amount sufficient to reduce the total commissions earned on the larger quantity below the current rate, while in so far as they were actual owners of coffee, their position would be the same as that of the planters. The politicians were probably less influenced by innate feelings of business prudence, and with the solid backing of the new £10,000,000 loan they were determined to reap the political harvest which a successful maintenance of high prices would provide. The trouble was not what the business men might want to do, but what they would not do, and therefore the President's power of veto was a useless weapon: hence the Government's decision to take the scheme into its own hands, and to oust its more fearful At the time this revision of the colleagues. Institute's constitution meant comparatively little, but it paved the way for policies which might never have been adopted if executive powers had been left to the representatives of the industry. At the time, however, there was little opposition: the planters never liked this complete political dominance over their industry, but prices were so good that, as a body, they were content with the Institute's activities, and since it had in practice been a State Department, there seemed little harm in making it so in name.

A second important development was the adoption of an automatic system of regulating the entries into Santos, in place of the purely arbitrary control which had so far been in operation. As from November 5th, 1926, the daily entries were to be one-twenty-fifth * of the total

exports from Santos during the previous month. thus, if increasing exports showed an increasing world absorption, supplies would increase automatically with a lag of rather less than a month. This abandonment of arbitrary control was represented as a concession to the Santos traders in general, and to the exporters in particular, both of whom had been loudly complaining of their inability to obtain certain grades in sufficient quantities, and of the paralysing effect on business generally under the complete uncertainty of the arbitrary regulation. If there had been no tangible evidence to support these complaints, the Institute might have regarded them as eminently satisfactory signs, but exports in 1925 were much lower than in the two previous seasons, and were obstinately refusing to increase materially in 1926. This, combined with a falling price level, probably persuaded the Institute that at least a nominal concession might not be amiss, and the adoption of a system ensuring an automatic increase in supplies as consumption expanded, would provide a convincing public demonstration that the Institute had no monopolistic intentions, but simply desired to achieve an improved adjustment of average supplies to the demand. So far as the control of price was concerned, the Institute could still intervene in the market if necessary, and with the new loan there was plenty of money for such operations.

From the exporter's point of view, the change was, of course, a very small improvement, because the practice of market intervention obviously destroyed that greater element of certainty which is, from his point of view, the chief advantage of an automatic over an arbitrary system of control. The Institute was, in fact, giving with one hand and taking back with the other, and the new automatic system with a continuance of market intervention was little, if any, improvement on arbitrary control with or without market intervention. It seems fairly clear that if the general level of price in a market cannot be maintained by an arbitrary daily control of supplies without resort to direct market intervention, then the maintenance of that price level is unsound: the use of one form of control should be quite sufficient, and since market intervention on the grand scale, as in time past, had been deliberately rejected, petty market intervention should also have been eschewed.*

^{*} I.e. allowing twenty-five working days per month.

^{*} The only defence of such operations would be that, in eliminating stocks in the hands of distributors, the Institute had inevitably removed the counter-influence to bear raids which normally comes from existing holders of stocks. But the remedy of market intervention is probably worse than the evil arising from this cause.

As between arbitrary and automatic control. the former is obviously the more powerful weapon, and especially with the prospect of a large crop to come, the Institute might well have been justified in feeling that by itself automatic control might not be sufficient. The choice was really, therefore, between arbitrary control and automatic control combined with the practice of market intervention, and the Institute chose the latter, partly because it would provide good propaganda, but more particularly because it would provide a system which could be satisfactorily operated by all the other coffee-producing States under a joint agreement, and São Paulo was now determined to bring about such an agreement. arbitrary control of entries would leave far too much scope to the other States to evade their share of the burden, whereas an automatic regulation of entries, based on exports and therefore really dependent on the price level, would work smoothly and satisfactorily, for the São Paulo Institute would regulate the price level by market intervention. The change now made was in reality a necessary step towards securing the co-operation of the other Brazilian States, and not a deliberate improvement of the system of control in favour of the

exporter.

While on the subject of the "mechanics" of the control scheme, reference may conveniently be made to the practice of substitution. During 1927 exporters became loud in their complaints that the stock of coffee, which was maintained in Santos, was so small that they could not get adequate supplies of the particular grades which they required at any given moment. This applied particularly to the finest grades, for it is a well-known phenomenon that when the general level of coffee prices is thought to be high, buyers are naturally inclined to buy a larger proportion of the better grades, arguing that since in any case they must pay a high price, they may as well pay a little more and get the best. In the case of washed coffees, the Institute itself had a problem, for these coffees cannot be kept in the Brazilian climate for more than a few months without loss of the colour which is so highly prized by buyers, and the period of detention in the regulating warehouses was now going to be considerable in view of the large size of the 1927–28 crop. Moreover, the Institute at this time did not want to put any avoidable difficulties in the exporter's way, nor arouse his hostility to an extent more than was inevitable. Accordingly, in October 1927 permission was given to the regulating warehouses to substitute at the request of the owner an equal quantity of

washed or finest grade coffees for any lot of coffee about to be released. Each application seems to have been considered separately until early in 1929, when the regulations were revised in a way which, according to the Medeiros bulletin, amounted to "the allowance to everybody of a concession made to every private concern requesting the same." The device of substitution appears to have been of some utility, but its efficacy was at times largely reduced by the high prices which were demanded and paid for low-grade coffees about to be released. Such coffees, in other words, went to a premium relatively to the higher grade coffees which it was desired to substitute, and the advantage of the operation largely disappeared so far as the exporter was concerned. This was an awkward but almost inevitable development, and indeed the whole problem seems almost beyond satisfactory solution: exporters cannot be allowed an entirely free hand without a serious weakening of producers' control, and a compromise is inevitable. Though breaking our chronological study, it seems advisable to complete this summary of an intricate subject. After the crash in October 1929, and until July 1st, 1931, when a new scheme of releases was adopted, the Institute allowed substitution only on condition that one-half, and later the whole of the lowgrade coffee for which substitution took place, was handed over to it for destruction. This, of course, kept the price of these low-grade coffees strictly within bounds, but also naturally diminished the advantage of substitution. Since July 1st, 1931, substitution has been deemed unnecessary in view of the revised scheme of control, but washed coffees are allowed direct delivery to the ports.

We now come to the third, and perhaps most important, development, namely, the provision of special financial resources through the organisation of the Banco do Estado de São Paulo. Such provision had always been an integral part of the defence scheme, for the planter's chronic need of cash made prolonged holding of stocks impossible unless he could obtain at least a substantial advance on coffee detained in the reguladores. The native banks of São Paulo had insufficient resources to provide any large amount of money for this purpose over and above what they were already providing and in addition to the other demands made upon them, while in any case they could not tie up more than a certain proportion of their loanable funds in a form of investment lacking short-period liquidity: for the same reason the foreign banks could not be expected to provide more than a limited additional amount. There is no doubt that the retention of the $4\frac{1}{2}$ million bags surplus of the 1923-24 crop for a period of a little over a year had been a severe strain on the farmers' re-They had been loud in their complaints, despite the successful maintenance of a very high price, and it was clear that their loyalty to the Institute would be severely strained if such a situation were to recur. especially at a lower price level. Again, the Institute itself wanted more ample funds for market intervention, and in general the knowledge that the defence scheme lacked really adequate financial resources, made the task of the Institute much harder, and its accomplishment proportionately less certain. Adequate finance in one form or another was the keystone of the whole scheme.

The Institute had, in fact, lost no time in setting out to procure a loan on the security of the r gold milreis transport tax. But they met with more than one reverse. It may perhaps be presumed that they first tried J. Henry Schröder & Co., since they were the "official" bankers to the São Paulo State Government, and if so, it follows that this firm refused, for attempts were then certainly made in New York. In order to ensure at least the absence of opposition from the consumer's point of view, negotiations were also opened with the Coffee Roasters' Association of New York, and an agreement was drafted on the following lines:

(1) No attempt to be made by the Institute to maintain an artificial level of prices.

(2) The policy of the Institute to be based on the average of the crops in relation to consumption.

(3) Violent fluctuations of price to be avoided and the market stabilised as far as possible.

(4) The minimum stock at Santos to be 1,200,000 bags.

(5) Entries into Santos to be flexible, in

accordance with the demand.

(6) The sum of I million dollars to be spent in the U.S.A. by the Institute during the next two years on coffee propaganda.

Item 4 above represented a substantial concession, and would have much eased the situation from the buyer's point of view, both at the time and more still in the period ahead. In August 1925 the Roasters' Association expressed itself as entirely favourable to the issue of a loan in the United States for the São Paulo Institute, and there are some grounds for the idea that the American bankers were on the point of coming to terms. But Mr. Hoover, as Secretary of Commerce, thought otherwise.

At this time his campaign against foreign combinations controlling essential raw material supplies, and against the British Rubber Restriction Scheme in particular, was at its height, and the direct support of coffee control by American money would have been too anomalous. Pressure was brought to bear on the bankers concerned, as in the case of the German Potash Loan, and Mr. Hoover publicly proclaimed that "the Administration does not believe that New York banking houses will wish to provide loans which might be used to support the coffee speculation which has been in progress for the past year at the hands of the coffee combination in São Paulo, Brazil. Such support would simply bolster up the extravagant prices to the consumer." * New York therefore declined, and the Institute had to turn once more to London. On January 2nd, 1926 a contract for a loan of £10,000,000 was signed with Lazard Brothers, and by Law No. 3988 of the same date the Secretary of Finance for São Paulo State was authorised to issue gold bonds to that amount. Against these the Institute issued bonds of its own, which were purchased by Lazard Brothers in two series of £5,000,000 each, and offered for public subscription on January 6th and June 7th, £4,000,000 of each issue in London, £500,000 in Holland, and £500,000 in Switzerland. The issue price of the first series was 94 per cent., and of the second $97\frac{1}{2}$ per cent., all bearing interest at 7½ per cent. and being redeemable on or before January 1st, 1956, at 102 per cent., for which purpose a cumulative sinking fund was provided.

The proceeds of the loan were converted into milreis as received. It seems probable that the bulk of the money was exchanged at not less than an average of $7\frac{1}{2}d$. per milreis, for the announcement of his policy of stabilisation at 6d. was not made by Dr. Washington Luis, as Federal President-Elect, until October. Had this change in policy been foreseen, the Institute would obviously have saved a heavy loss by keeping the loan proceeds in London as the basis for such credits as it required: in this way the tremendous depreciation of the capital involved in the fall of exchange from over $7\frac{1}{2}d$. to under 6d. would have been largely avoided. But the new President kept his own counsel even if he had already made up his mind, and no one in the summer of 1926 suspected such a

drastic reversal of exchange policy.

The Institute was now able to purchase from the State Government the existing reguladores, which the latter had purchased

^{*} See the Index of the New York Trust Company for February 1928.

from the Federal Government in 1924. Purchases were also made of the stock of a small local bank in sufficient quantity to give full control, though it still nominally remains a private company. This bank was then renamed the Banco do Estado de São Paulo, and reorganised into two separate departments, one intended for the transaction of mortgage business primarily on agricultural land, though urban property was not excepted, and the other for discounting coffee bills of lading and warehouse receipts, though it was not precluded from any ordinary banking business. By October 1926 the bank was operating on its new basis, and had taken charge of the financial affairs of the Institute, which had so far been managed by one of its own departments.

The Bank was not, however, called upon to finance much coffee during the 1926-27 crop, which at 14.7 million bags for all Brazil was readily absorbed in the normal way, and on July 1st, 1927, the interior stocks at 3.3 million bags were only 500,000 bags greater than in 1926. But indirectly the new riches of the Institute had a considerable effect, for on commercial grounds the carry-over from 1926 should certainly have been disposed of altogether: to allow any increase was the height of folly. The flowering of September 1926 had given promise of a bumper crop in the 1927–28 season, and as the months continued to pass by, this became a certainty. Whatever the financial resources available, common business prudence pointed unmistakably to the obvious wisdom of clearing out all existing stocks in preparation for the huge surplus in sight in the near future, and thus liberating all available financial resources even if this involved a further decline in prices. The Institute, however, chose to allow a further accumulation of stocks, so that the total carry-over was approximately onethird of a year's exports from Santos.

At first sight, the Institute's policy during the winter of 1926-27 seems sheer madness. It is possible, however, to find certain excuses. Ever since its establishment, the price level had been obstinately declining, and, though still leaving a wide margin over costs, it was now relatively low as compared with two years previously. If the Institute had already built up a reputation of stability and of firm control, a further decline might have been faced in order to liquidate existing stocks in preparation for the coming large crop. But the Institute was, in fact, still very much on its trial, both in the eyes of Brazilian farmers and of the world at large. The prospect of the big crop raised doubts in all minds as to whether the Institute, even with its newly-acquired resources, could finance the amount of coffee necessary to prevent a collapse in prices. world market was eagerly looking for signs of weakness, and the other coffee-producing States whose co-operation was now all the more desirable, and in fact essential from São Paulo's point of view, would not join a ship about whose seaworthiness they had considerable doubts. It is, in fact, possible to argue that the attempt to dispose of an extra 3 million bags would have precipitated a serious break in the market, and not merely a further small decline. The Institute had to do everything possible at this time to maintain the confidence of its existing supporters, to win new supporters, and to convince its opponents of its ability to control the market.

There is, therefore, this negative defence on the lines that the Institute dared not pursue the policy of prudence and common-sense. Positively, there is not much which can be said in its defence. It is true that few people realised the full magnitude of the coming crop, though all realised it would be very large. It can also be urged that the world's visible supplies were less than 4½ million bags, and that, even with the addition of the Brazilian interior stocks, the combined total of $7\frac{1}{2}$ million was considerably below the 10 million bags which visible supplies had averaged in the past. But this does not alter the fact that Brazil was financing well over 3 million bags of this total. The Institute may have thought that the São Paulo crop would not amount to more than 15-16 million bags, and may have counted on a crop of 6 million bags to follow: further, exports now seemed to be on the increase from the low level of 1925. But even on this basis the probable carry-over in July 1929 could not be less than 5 or 6 million bags, or at least half a year's supply, while at the peak it would be necessary to finance not much less than 20 million bags. This latter part of the problem, however, probably did not worry the Institute overmuch, for London seemed quite ready to supply any amount of money, and the costs of borrowing for the short period of the peak load would not be too burdensome, if this enabled prices to be maintained at the existing level. As for the more distant prospect, "God is a Brazilian," and it would be most unwise to commit political suicide on the chance that this was no longer true.

As has been said, the organisation of more adequate resources had an indirect effect, in that it doubtless stiffened the Institute in its determination to eschew the course which prudence was pointing out during the latter part of 1926 and the beginning of 1927. But despite

its rigid control of entries, the Institute found itself unable to stem the downward trend of From an average of 22:13 cents for September 1926, the price fell sharply to a little over 20 cents for October: this level was maintained until the New Year, and then, under the combined influence of the arrival of the mild crops and the growing assurance that the expectations of a bumper crop * from Brazil would be more than realised, the fall continued until 16.88 cents was reached for July 1927. But from August onwards a rapid rise began, as the world also became convinced of Brazil's determination to store the surplus, however big, and of her ability to do so, while the Institute assisted the movement by market intervention on a considerable scale. following price statistics show the meteoric rise which took place:

AVERAGE OF SPOT PRICES FOR SANTOS 4's IN NEW YORK

\$ \$	August September October	 	16·98 17·75 20·66

Needless to say, it was Brazil's ability rather than her determination, which weighed with the world market. The latter had been already demonstrated by the conclusion of the first convention with the other Brazilian coffeeproducing States in May 1927. This, however, occasioned no response on the part of the price level: the mere extension of control was nothing if adequate finance was not to be forthcoming. This crucial issue was virtually settled with the granting of a £5,000,000 credit for one year by Lazard Brothers in September, while shortly afterwards it became known that the Banco do Estado had arranged a contract, also with Lazard Brothers, for the issue of a £5,000,000 twenty-year term loan against mortgage loans made by the Bank, the issue to be made in four series, the first almost immediately. These matters must now be considered in more detail.

The Inter-State Convention of May 1927 was not by any means a first attempt to secure the co-operation of the other producing States: rather it represented the climax of long, and hitherto more or less abortive, negotiations. The State of Minas Geraes is the next biggest producer after São Paulo: its exportable crop

at this time was rather more than 3 million bags, of which about 600,000-800,000 bags were exported via Santos, and the rest through the ports of Rio and Victoria. The State of Rio itself normally exports through Rio about 700,000-900,000 bags, and also a little more through Victoria. Espirito Santo had at this time an exportable crop of about 800,000-1,000,000 bags, mainly through Victoria but some through Rio, while Bahia and Pernambuco added another 400,000 bags. At this time the production of Parana was insignificant. It should be observed, however, that estimates of production in each State are really only rough approximations, for each State exports through more than one seaport, and the only reliable figures are for the exports, which normally show rather more than 3 million bags passing through Rio, and rather more than I million bags through all the other ports, not including the 700,000 bags of Minas coffee exported via Santos.

The first step by any of these States was taken in August 1925, when Minas levied a transport tax of 1 gold milreis similar to that which had been imposed in São Paulo. Such action was virtually forced on Minas, for Minas coffee exported via Santos had to pay the São Paulo tax, so that those producers who could ship through Rio were enjoying a differential advantage. The proceeds of this loan were accumulated until December 1925, and were then used as the basis for loans to the fazendeiros through the State Bank. The second step came in November 1925, when a formal meeting took place between representatives of the São Paulo Institute and the State Governments of Minas and Rio. The latter followed São Paulo's lead to the extent of passing a law creating a coffee defence service, but nothing was actually done until August 1926, when an Institute, similar to that in São Paulo, was organised, though with representation of the farmers, and a gold milreis tax imposed. Minas stoutly refused to agree to restrictions which would result in any carry-over from one year to another, but was willing to regulate railway shipments so that the crop reached the ports evenly throughout the year,* i.e. the shipment each month of one-twelfth of the crop. It must be realised that the Minas man is by nature an individualist, and that Minas politics are not dominated by coffee as is the case in São Paulo, while from the point of view of Minas, Rio, and the other States, it was obviously to their

^{*} The crop was to be no less than 17.3 million bags for São Paulo and 26.1 million bags for all Brazil. With the addition of Minas coffee despatched through São Paulo, the Santos crop was over 18 million bags.

^{*} The great evil in the eyes of the Mineiro was that the planter's need for cash compelled him to force his coffee on to the market in the early months of the marketing year; thus prices were depressed then, and again in the last months because speculative sales in, say, May for delivery in September were nearly always profitable.

advantage that São Paulo should "carry the baby," so long as she was willing and able to do so.

This half-hearted co-operation did not, of course, satisfy São Paulo, but nothing more could be done at the moment. It was not until the picking of the 1927-28 bumper crop had actually commenced that Minas and Rio became more amenable. The size of their own crops was alarming in itself, and a breakdown of the São Paulo Institute would be absolutely disastrous: the flood of coffee which would be forthcoming with unrestricted entries would lead to unimaginable prices for the hard Rio coffees. The States of Minas, Rio, and Espirito Santo, therefore, agreed in May 1927 to regulate entries into Rio and Victoria as from June 10th according to the automatic monthly system in operation at Santos, i.e. entries for each month would be the quantity exported in the preceding month. The three States were each allotted a percentage of the total permissible entries at each port, according to the proportions of the exports from that port which each was estimated to have supplied in the recent past: these quotas were, of course, the subject of much bargaining, for the available statistical information is, as has been noted above, far from complete. This first Inter-State Agreement was to be reviewed at a further meeting in September.

By that time the situation of the São Paulo Institute had been changed substantially for the better by the promise of the £5,000,000 credit from Lazard Brothers. There was now no doubt that São Paulo could weather the storm, and the obvious course for the other States was to get tow-ropes over to the Institute's ship as soon as possible. At the second convention (September 1927) the States of Pernambuco, Bahia and Parana were also represented, and a new and more detailed scheme was agreed upon. The automatic regulation of port entries was confirmed, and in addition maximum stocks were fixed for each port as follows: Santos 1,200,000 bags, Rio 360,000, bags, Victoria 150,000 bags, Bahia 60,000 bags, and Paranagua and Recife each 50,000 bags. To bring the existing stocks up to these maxima, a supplementary quota was established on the scale required to reach the maxima within a month, but if the New York terminal market quotation declined more than ten points below the average of the preceding week, these supplementary quotas were to be discontinued until the quotation averaged within ten points of, or higher than, the level at which the quota had been in operation. As interpreted by the São Paulo Institute, this meant that the supplementary quota would not operate so long as the

general price level was falling, but only if it was stationary or rising. This device was not without its merits, for it provided an additional short-period elasticity, and an effective answer to the complaints of exporters that if they increased their purchases by any substantial amount, the Santos stock became so reduced that they could not get the precise grades they required. By slightly raising the price, increased entries could be obtained within a week instead of a month. Equally from the Institute's point of view the accumulation of stocks in Santos consequent on diminished buying would be more rapidly checked as the result of the consequent decline in the price. The Brazilian mind is singularly apt at devising such mechanisms, a fact which will be further exemplified as this history proceeds.

The regulation of port stocks was the only new feature in this second Inter-State Agreement, with the exception of the enactment of a tax of 200 reis per bag for consumption propaganda.* The rest of the agreement concerned the percentage which each State was to have in the permissible entries to each port. This also need not be considered in detail, and we can pass to an examination of the now perfected financial arrangements of the defence scheme

As has been already stated, the granting of the £5,000,000 credit for one year, followed by the arrangements for the £5,000,000 gold mortgage loan to the Banco do Estado, had freed the Institute from any fear as to its ability to provide sufficient finance for the current bumper crop. But for a proper understanding of subsequent developments, it is essential to

* The Institute displayed great energy in initiating a campaign for increased consumption. By the early summer of 1928 contracts for advertisement and propaganda had been arranged with agents in most European countries, and in other South American countries, as well as in the U.S.A. through the Roasters' Association. Grants were to be made to drug stores and cafes serving only Brazilian coffee, "express" coffee machines were to be installed on board ships and elsewhere, while there was to be a Press and bill-poster campaign in selected towns. These contracts were, I gather, renewed in 1929, but I have insufficient information as to the more recent state of affairs, though apparently the campaign continues on the same lines. There seems little doubt, however, that the campaign was on a scale far too small to be productive of appreciable results. On an annual export of 15 million bags the proceeds of the tax would amount to about £75,000 at the exchange rate of 6d. which ruled in 1928 and 1929, and it is fairly obvious that this sum spread over so many countries could not produce much result. It would probably have been much better if the Institute had concentrated its efforts and its resources on one or two countries, or even on specific towns in these countries. Critics of the defence policy maintain that the campaign was really little more than a "sop" to consuming interests. One other aspect of the tax deserves mention, namely, that in the last year or two \$50 Paulo opinion has been inclined to doubt whether the advertisement of Brazilian coffee is not doing \$50 Paulo coffees more harm than good, on the ground that the coffees of the other States are of inferior quality and may therefore earn a bad name for Brazilian coffee as a whole: the Paulistas feel that it might be better to break away from the other States and conduct a campaign for \$50 Paulo coffee as such.

grasp the general relations of farmers, commissarios and banks in São Paulo. Before the organised control of the Institute with its prolonged retention of stocks, the farmer used to send down his crop to Santos as quickly as possible, and upon arrival it was sold within a short period, so that usually by Christmas he had received the whole proceeds of the crop. However, since, like most farmers, a coffee planter usually starts with insufficient working capital, he has insufficient means of meeting his current expenses during the growing period of his first crop, and the Santos commissario comes to his assistance by advancing money as required, against an undertaking that the crop shall be sold through him. Thus the farmer runs up a bill with the commissario, and when the latter has sold the crop, he repays himself, and remits to the planter only the balance, if any, of the proceeds of the sale over the total amount advanced plus interest charges. farmer therefore soon requires to borrow again. and so the system becomes permanent, for it does not pay the farmer to lock up large quantities of capital which are only required for a short period of the year, and which he has no facilities for employing temporarily when not The commissario usually obtained the money for making these advances to the planter by pledging his capital with the banks, or by overdrafts allowed on his personal reputation: few commissarios had sufficient capital of their own for the purpose, and in any case most of their own capital would probably be employed in giving long-term mortgages to the farmer for new planting, etc., since the banks did not normally handle this business. On the whole this system of short-term credit appears to have worked reasonably well, for competition amongst the commissarios in their desire to handle the largest possible amount of coffee meant competitive rates of interest on the advances required by the farmer, and though usually as high as 10-12 per cent., this was not an unduly high level on Brazilian standards.

When the regulation of entries into Santos began, the situation was radically changed. Instead of receiving the proceeds of the sale of his whole crop during November and December, the farmer now received roughly one-twelfth of an average crop every month, and if the crop was above average, the surplus was carried over on July 1st into the next season. The farmer therefore needed a permanently larger volume of working capital for average crops, and in addition a further temporary increase if the crop was above average and the surplus consequently detained in the reguladores: any carry-over

would, of course, also delay the marketing of the next crop. But while the farmer thus required more money, he now had an additional security to offer, namely, the stocks of his coffee in the reguladores. Acting as the acceptor of bills of lading drawn by the planter, the commissario could pledge them with a bank, and thus obtain the additional money required for making the larger advances now required by the planter. The limiting factor was the willingness of the banks to make advances on the coffee bills, and ultimately the ability of the banking system as a whole to find the money required. As has already been said, the large crop of 1023-24 severely taxed the financial resources of all concerned, and the planters. as those who had to bear the brunt, were loud in their complaints: many of them had, in fact. been forced to sell part of their crops upcountry for cash at prices far below the Santos market price. The £10,000,000 loan, and the organisation of the Banco do Estado, went far to remedy the situation. The chief function of the Banco was to provide advances on any remainder of bills and warehouse receipts not discounted by the ordinary banks: in other words, when the ordinary banks stopped, the Banco had to fill the rest of the gap. During the 1926-27 crop all went well, for the crop was only an average crop. But it was the fear lest the Banco's resources should prove insufficient to fulfil this function which caused such a heavy fall in the price as soon as the bumper crop of 1927-28 came into prospect. provision of further resources through Lazard Brothers, however, put an end to such fears, and at the same time the arrangement of the mortgage loan finally disposed of any worry on the farmer's part, for if he could not get sufficient cash on his bills of lading, he could, if the worst came to the worst, do so by mortgaging his plantation at what seemed very reasonable terms.

From the farmer's point of view, the milreis price is what matters at any rate in the short period. From a low level of 23\$850 per 10 kilos in June and July 1927, the official price of Santos 4's averaged 28\$500 in October, 31\$000 in November and December, 32\$000 in January 1928, 33\$000 for February, March and April, 33\$250 in May, and 33\$500 for the rest of the year. As has already been said, these official prices were rendered somewhat artificial by the Institute's intervention and control in the market; in general they err on the high side, sometimes by little, sometimes by much. But they provide a rough guide, and the actual selling value of a bag of Santos 4's can be put at 170-190\$000 during this season. On this price basis, the 17 million bags São Paulo crop of 1927-28 was financed on a gradually increasing scale from 80\$000 to 120\$000: the average was certainly not less than 100 \$000 per bag. Such advances were perfectly reasonable from the lender's point of view, provided he was sure that the current price level would be roughly maintained at least until such time as the coffee was released and sold: and the newly-found general confidence in the Institute was such as to preclude any fears to the contrary. But though reasonable in this sense and from this point of view, such advances were most unreasonable from the point of view of the borrower's needs, and the resulting reactions on the general economic equilibrium of São Paulo and Brazil were to be disastrous.

To judge what such advances meant to the farmer, it is necessary to consider the nature of his normal costs of production, and the actual costs of producing such a bumper crop as that of 1927–28. The first essential point is that on almost all types of fazenda * fixed costs in a normal crop year amount to rather over 75 per cent. of the total costs, excluding all interest charges; in other words, all costs which vary with the size of the crop constitute only 25 per cent. of normal total costs. By far the biggest item is the colonist's wages for the care of the trees, and this is the same whether the trees bear a large or a small crop. This accounts straightaway for over 45 per cent. of normal total costs; the balance is made up of such items as administration, pruning and manuring, reserves for replanting, depreciation of machin-ery, buildings, etc. The largest item of the variable costs is the actual picking of the crop, which is paid for separately from the cultivation of the trees, and the balance consists of transport to the drying ground, drying, hulling, bagging, transport to station, etc. On this basis of 75 per cent. of the total costs fixed, it follows that if the aggregate costs of a normal crop are taken as 100, the aggregate costs of producing a crop twice as large as that normal crop will only be 125, while the aggregate costs of producing a crop half as large as the normal crop will be as much as $87\frac{1}{2}$. Conversely, if the cost per bag of the normal be taken as 100, the cost per bag of the bumper crop twice as large will be 62½, while the cost per bag of the small crop will be 175.

These general propositions rest on a sure foundation. But for the purpose in hand it is

necessary to consider actual figures. Now it may be stated without fear of contradiction that any statistics purporting to give average costs of production in São Paulo, even for a specified crop, are inevitably misleading. In the first place, the normal yield of different fazendas varies all the way from 25 arrobas to 200 arrobas per 1000 trees, and even more: an average is not a suitable statistical measurement under such circumstances. Secondly, costs on normally high-yielding fazendas are not by any means in proportion to the costs on normally low-yielding fazendas, since, for example, the former are usually in newlydeveloped territories where transport costs and labour costs are much higher than in the older zone. Hence, in his investigation for the São Paulo Institute, Dr. J. C. Muniz wisely confined himself to an investigation of typical fazendas in each of the three kinds of zones: (a) the Old Zone with trees 30-60 years old, yielding 37 arrobas per 1000 trees, (b) the Intermediary Zone with trees 30-40 years old, yielding 55 arrobas per 1000 trees, and (c) the New Zone with trees 4-20 years old, yielding 70 arrobas per 1000 trees: and he made no attempt to give average results for the whole of São Paulo, because there is no means of classifying the total number of trees according to normal yields, while the allocation of each class into its appropriate zone could only be done in the roughest possible manner. Dr. Muniz's statistics have been widely used by the President of São Paulo, the President of the Institute, and the leaders of the industry, for the purpose of justifying the level of prices in 1928 and 1929 so that there is no doubt that in the producer's eyes they do not understate the position. The figures may, in fact, be criticised as too high, but for the present purpose it is desirable to see how producers stood in 1927-28 on a basis which they themselves have endorsed.

The method of calculating the advance per bag on the 1927–28 crop which the farmers really needed is as follows. Since the method is the same for all, Dr. Muniz's Intermediary Zone fazenda will be taken as the example. From July 1st, 1927 to the middle-end of March 1928, the coffee entering Santos was still of the 1926–27 crop. This crop was roughly an average crop, and therefore Dr. Muniz's figures * as they stand can be taken as representing its costs of production. The first step is to ascertain what profits the farmer was receiving from the sales of his 1926–27 crop. This fazenda, as shown by Dr. Muniz's figures,

^{*} Fazendas with a very high yield will show fixed costs two or three points less, and those with a sub-normal yield two or three points more. Various factors, in particular the higher wages paid on the new high-yielding fazendas because they are in new districts, account for the small range in this basic proportion.

^{*} Dr. Muniz's statistics for all three of his typical fazendas are reproduced in Table IX in the Appendix.

produced an average crop of 55 arrobas per 1000 trees, at an aggregate cost, delivered in Santos, of 1969\$000; this sum including not only all freight, taxes and interest charges on working capital,* but also interest, or really profit, at 10 per cent. on the capital investment at the current value of the trees. The price of Santos 4's per 10 kilos during the whole period of the sale of the 1926-27 crop averaged approximately 28\$000, but since these official figures may err on the high side, and since the crop of the majority of farmers does not quite average grade 5, this figure will be reduced to 26\$000. The sale of the 55 arrobas would therefore realise 2145\$000, leaving a surplus of 176\$000 over costs as defined above. Now these costs include a 10 per cent. return on the capital invested, and if we make the very reasonable assumption that the farmer should not have taken more than this 10 per cent. for his own personal expenditure, this surplus of 176\$000 per 55 arrobas (or, which is the same thing, per 1000 trees) would have been available to help meet the expenses of the 1927–28 crop.

The next step is to reckon the costs of the 17 million bags crop of 1927–28, which will be taken as 70 per cent. above normal. Deducting freight, taxes and interest charges, the aggregate cost per 1000 trees at the average yield (as that of 1926-27) is, according to Dr. Muniz's figures, 1045\$000. Of this, three-quarters represents fixed costs: the remaining quarter is increased by 70 per cent., and the aggregate cost at a yield of 93 arrobas (70 per cent. above the average 55 arrobas) is 1227\$000 per 1000 trees. This represents the cash which the farmer had to find in order to get his crop to the reguladores. From the surplus proceeds of the sales of the 1926-27 crop he has 176\$000 per 1000 trees, and the remaining 1051\$000 must be obtained on the security of the 93 arrobas which each 1000 trees has produced. This works out at 46\$000 per bag. As has already been said, he actually obtained about 100\$000 per bag!

A similar calculation for the other two typical fazendas suggests that the planter in the New Zone would not have required an advance of more than about 32\$000 per bag. The picture is rather different for the planter in the Old Zone. The sale of his 1926-27 crop would have resulted in a deficiency instead of a surplus: in other words, he would have obtained something less than 10 per cent. return on his capital. If this deficiency is carried forward, he would have required an advance of 80\$000 per bag on his 1927-28 crop. There

would, however, be little justification for carrying the deficiency forward. It is true that his costs were increased by interest charges during the period his coffee was detained in the reguladores, but this cost really represents the cost of the defence scheme, and must be reckoned against the benefits of that scheme in its effect on the selling price: in other words, this old plantation could probably no longer pay 10 per cent. on an unregulated normal selling price, and was probably at this time doing better under control than it would have done under laissez-faire, though not well enough to pay a full 10 per cent. If the deficiency is not carried forward, the advance required would have been 68\$000 instead of 80\$000.

These farmers in the New, Intermediate and Old Zones therefore required advances of 32, 46 and 80 milreis per bag at the most, instead of the 100 milreis which they received. This estimate indeed almost certainly errs on the high side, in that Dr. Muniz's figures are probably liberal, while the average selling price which has been adopted for the 1926–27 crop is probably on the low side. Further, the allowance of 10 per cent. on the capital invested is sufficiently generous: a wise planter would have put some of this into a reserve fund, and thus provided some of his working capital at a lower rate than the 12 per cent. charged by the commissario. On the other hand, for a short period, when they were settling their harvest accounts in the early autumn, the planters might have required more cash in hand. But with these and other qualifications, and with a generous allowance for the possible error in these statistical calculations, there can be little doubt that the typical farmer of the New Zone received advances for his 1927-28 crop exceeding his requirements by 50-60 milreis per bag, and the farmer in the Intermediary Zone an excess of 40-50 milreis per bag, while even carrying forward the deficiency from the 1926–27 crop the Old Zone farmer certainly had money to spare. In other words, the owners of 100,000 trees in the Intermediary Zone suddenly found themselves with spare cash to the tune of 1150\$000 per 1000 trees (50\$000 per bag on the 23 bags yield per 1000 trees), or in round figures an aggregate of 100 contos, while those in the New Zones received even more. No wonder that the Institute seemed a fairy godmother!

But before considering what the planters did with this large amount of spare cash, it will be as well to see how their prospects were shaping in the future, for the above calculations do not apply after the 1926–27 crop was sold out

^{*} For a period of sixteen months, i.e. allowing for the average detention in reguladores at this date.

during March 1928. At the end of 1927, the Santos price had averaged 31\$000, and was steadily mounting. There was certainly no reason why such a price should not be at least maintained for some time: the Institute had weathered the storm, and the very short crop in prospect for 1928-29 would make possible a large reduction in the accumulated stocks. Actually by March the price averaged 33\$000, and two months later was 33\$500, so that the price obtained by the farmer for the sales of the first part of the 1927–28 crop may be put at about 30\$000 per 10 kilos, or 180\$000 per bag. For the fazenda in the Intermediary Zone, the aggregate cost of the 1927-28 crop of 93 arrobas per 1000 trees consigned to the reguladores has been reckoned above as 1227\$000, which is approximately 53\$000 per bag. The total costs including interest on the working capital, but not on the capital invested, would work out as follows:

Cost of production as consigned to reguladores			
Commission for commissario (3 per cent, on selling price)	10\$000		
Interest charges, say Total	10\$000 83\$000		

The sale price, therefore, exceeded total costs by 97\$000 per bag. The capital investment per bag was 44 trees at 5\$000 per tree, or 220\$000. If the surplus over costs be put at only 80\$000 per bag, so as to be absolutely on the safe side, the farmer stood to get a return of over 35 per cent. on his capital. Even the planter in the Old Zone might anticipate a return of at least 25 per cent., while those in the New Zone would see their whole capital back with one more similar season.

Thus, towards the end of 1927 the farmers not only had very large supplies of surplus cash, but the prospect of enormous profits on the sale of their 1927-28 crop. It was, of course, clear that the current crop (i.e. 1928-29) would be very small, and therefore very costly: few could hope to make much profit, but, on the other hand, few need anticipate an actual loss, so long as present prices were maintained. But it may be doubted whether, in fact, many planters looked forward even so far as this. As Brazilians, the thing which really mattered was that they had more surplus cash in their pockets than they had ever known before, and as Brazilians the temptation to spend it before it was required for some other purpose was irresistible. The fazendeiros and their families poured into the city of São Paulo, and bought, or built, fine houses, costly motor-cars and

every form of modern luxury. The shopkeepers soon found that price was a minor consideration to such buyers, and so they too began to make, and spend, huge profits. As well as the money spent in São Paulo and within Brazil, money was poured out abroad: a prominent banker in São Paulo estimates that the São Paulo banks provided at the very least £1,000,000 in letters of credit, and other instruments, for planters who spent the winter of 1927–28 in Europe, and to this must be added the far from small cost of the ocean passages, most of which were presumably paid before leaving Brazil. It is said that no one who was not an eye-witness can comprehend the extent to which money was circulating in São Paulo at this time.

But though there was so much spending, many people found it almost impossible to spend all the money which they had received as advances, and that which they were receiving month by month in the form of profits on actual sales, while those who did succeed in this task were anxious for still more money. Consequently all forms of investment were favourably received, and money was poured into shops, offices and factories, and also into houses for the new industrial population, as well as into city mansions for the wealthy, with the inevitable corollary of a boom in real estate as well as in the building trade. Towards the end of 1928 every hour of the working day produced at least one new house in São Paulo city! But many coffee planters naturally thought that the best form of investment was in coffee, and there was, therefore, a still greater increase in the rate of new planting. It must be remembered that coffee production on the highyielding virgin land of the newly-opened territories had been a tempting proposition for some years, and the rate of planting had been rapidly increasing. Hitherto it had been hindered, partly by doubts as to the powers and stability of the Institute, but mainly by shortage of the necessary financial resources. Now all doubts had vanished, and the resources were to hand, while the new facilities for mortgage operations would supply any remaining deficiency. Naturally the development of new fazendas was undertaken by the more enterprising, many of whom sold their existing properties outright at very high capital values, though for the most part the buyers were only able to pay a proportion in cash, the rest being settled by a mortgage to the original owner. It seems likely that 15-20 per cent. of the trees in São Paulo changed hands during 1928 and 1929. Others mortgaged their existing property and constructed new fazendas with the proceeds, while all available land on existing fazendas was planted up. But the new planting was not confined to such relatively largescale capitalistic operations. During the previous four or five years, many ex-colonists had made money by growing cereals, which had been highly priced because the prosperity of the fazendeiros had enabled them to dispense with the practice of allowing the inter-planting of cereals by their colonists between the coffee These ex-colonists and others now used their savings to buy land, clear it and plant it with coffee, reckoning to finance themselves, while the coffee trees were growing, by the sale of inter-planted cereals. The development of these small plantations was especially marked in the new district of the Sorocabana Railway centred round Presidente Washington * and Santa Anastacio. This was one well-marked zone of new planting, the other two being along the North-West Railway from Pennapolis to Aracatuba and beyond, and along the new Alta Paulista Railway, and between that and Pirajuhy on the North-West Railway. More will be said of these developments later.

The general business boom in São Paulo, and particularly the building of houses and factories, the great increase in new coffee planting, and the demand for coffee financing at such high rates, all combined to cause a big demand for credit from the banks. Everyone raised money in every possible way, and to the utmost possible extent, in order to secure a share in the enormous profits which were realisable, at least on paper, from almost every kind of enterprise. The banks followed suit and expanded credit, with the result that currency inflation quickly ensued, and the rising prices further stimulated the general boom. Comparing December 31st, 1926 with December 31st, 1927, the returns of the four native banks in São Paulo, consolidated together, show an increase in deposits from 583,000 contos to 750,000 contos, the percentage of cash to these deposits falling from 32.6 to 28.1: by December 31st, 1928 deposits had further increased, and the percentage of cash had fallen to 25.7. The statistics of the Banco do Brazil show a total note issue of 2,569,000 contos in December 1926, 3,005,000 contos in December 1927, and 3,379,000 contos in December 1928, though, as the notes held by the Banco itself increased from 176,000 contos in 1926 to 505,000 contos in 1928, the increase in the active note circulation was not quite so great as the statistics of total notes issued suggest. Further, it must be remembered that

the colonist, and even the small shopkeepers and traders, hold their savings in the form of hoarded notes, and as the general prosperity spread downwards throughout the whole community, an increasing quantity of notes passed for practical purposes out of active circulation into the poor man's stocking. Undoubtedly, however, there was considerable monetary inflation, and this took place without affecting the external value of the milreis. because of the steady stream of foreign loans which were contracted by the Federal Government and the State Governments at this time. As regards coffee financing, the native banks and the foreign banks participated largely in the early financing of the 1927-28 crop, but as the boom developed, the foreign banks found more liquid and more attractive uses for their funds, and as the months passed by, most of them, together with at least one of the native banks, more and more strictly limited their liabilities on coffee, and the Banco do Estado was called upon to make good an ever-widening

gap.

It will be convenient to continue this survey of the planter's financial position and its results before returning to a consideration of the Institute's activities and policy. As has been said, the 1928-29 crop was small, 6.8 million bags in São Paulo as against over 17 million bags in 1927–28: moreover, the increased number of trees planted in 1921-22 and 1922-23 were now coming into full bearing, so that the decline in the yield on the other plantations was even greater than if the normal crop is still reckoned as 10 million bags. Working on Dr. Muniz's figures, and assuming a yield 60 per cent. of the average yield, the cost of placing the 1928-29 crop on the railway was in the neighbourhood of 153\$000 per bag for the Old Zone fazenda, 118\$000 per bag for the Intermediary Zone, and 100\$000 per bag for the New Zone. On this 1928-29 crop the planter obtained an advance of 100\$000 per bag, as in the previous year, but, with the enormous change in costs per bag, it was now almost as meagre as it had been excessive. Actually if there were not reasons for suspecting that Dr. Muniz's statistics are somewhat on the high side to be strictly typical, allowance would have to be made in using them as a basis for the 1928-29 season, for wages had risen sharply owing to the demand for labour in the cities, and for developing and planting the new districts, and the price of materials, though not of great importance, had also increased. The position of the Old Zone planter, with a deficit of 50\$000 per bag as between the advance obtainable and the costs incurred, would

indeed have been very difficult if he had not been receiving profits from the current sales of the previous crop at the rate of 70-80\$000 per bag, of which 24\$000 would suffice to give him a return of 10 per cent. on the capital invested. But since the surplus from the sales of the 1927-28 crop during the spring and summer had probably been dispersed in one way or another, many planters in the Old Zone undoubtedly found themselves somewhat pinched for ready cash in the autumn of 1928, for, in addition, their interest charges were increasing as the period of detention in the reguladores increased. The planter in the Intermediary Zone was little embarrassed and in the New Zone not at all, but all had now much less spare money. The embarras de richesses was passed, and is not likely to return for many a day!

C. The Period October 1928-October 1929

The story of the crop year 1927-28 has now really been told, and it is only necessary to add that, since exchange was steady, the gold price followed much the same course as the milreis price, rising steadily from 16.88 cents average for July 1927 to 22.13 cents in November: for December the average fell to 21.66, but with the New Year the advance was resumed, and a peak of 23.8 cents was reached in June 1928. For July and August the average continued at this figure, but there was then a slight sag for the rest of the year, the average for December 1928 being 23.2 cents.

The financing of the 1927–28 bumper crop at such high rates was a cardinal mistake in that it placed a wholly unnecessary burden of interest on the planter, and by generating a trade boom, with the usual accompaniments of credit inflation, strained the resources of the banks, while costs of production were increased, and new coffee planting was stimulated to excess. Apart from this, little fault can be found with the Institute's policy up to September 1928.* On July 1st the carry-

* On April 20th, 1928, Messrs. Nortz & Company, the well-known New York brokers, included in their usual bulletin the following appreciation of the general situation, which, coming from a source definitely antagonistic to Brazil's defence policy, is so extremely broad-minded and well-balanced that its repro-

duction here may be of interest.

"The bulk of the Mild crop has been shipped. Prices have advanced about \(\frac{3}{4}\) cent during the past few days. Distributors who have bought very little coffee during the past few weeks in the belief that the market would break subsequent to the March operation, have meanwhile used up most of their former purchases, and now stand in need of new supplies. There being no stocks in consuming countries, there is no alternative left for no stocks in consuming countries, there is no alternative left for them but to pay the prices asked by Brazil. From the Brazilian point of view, their present attitude is perfectly logical—they are out to sell their output at the highest possible price, having successfully disposed of the problems connected with taking care of the present heavy output. Who will blame them and what merchant in the same position would act otherwise, as

over for Brazil as a whole was over 13 million bags, the peak of nearly 15 million bags having been passed in February. The 1928-29 crop was, in fact, to be 10.9 million bags, but it was, probably quite genuinely, under-estimated. Exports in 1927 had reached 15.1 million bags, and a further increase might be expected by the optimistic. Making the most favourable estimates of all the factors, the Medeiros Bulletin was able to show a tolerable case in support of the proposition that the carry-over on July 1st, 1929 would be only 6.7 million bags, which with a visible supply of 5 million bags was not so much in excess of the world's normal total stocks of about 10 million bags before the advent of the Institute and artificial control. Beyond that, all was still really guess-work up to the flowering of the 1929-30 crop in September 1928. It was indeed be-

long as he feels he has the power to dictate prices? Let us be frank with ourselves. As far as coffee is concerned, the problem of coffee consumption nowadays, or even of the coffee market for that matter, is not one of price at all. No one can say that coffee is dear, even measured by pre-war standards, especially now that wages have doubled and trebled during the last fifteen years, while the spirit of spending and the standard of living of the masses have developed to a degree unknown

before.
"Coffee as an article of daily necessity has acquired an conee as an article of daily necessity has acquired an importance, due to prohibition and the trend of the taste of the public, which would have been considered improbable twenty years ago. It has now become practically an indispensable adjunct to the diet of many millions.

"The situation has quite a different aspect from the point of the property of consuming register and distributors, who is confirmation of the point of the property of consuming registers and distributors, who is confirmation and the property of consuming registers and distributors, who is confirmation and the property of consuming registers and distributors who is confirmation.

of view of consuming markets and distributors, who in coffee like many other markets, have been placed in a rather difficult position through the changes which have taken place in the coffee business, and the curtailment of their former sphere of action. It is their weakness which becomes the source of the present strength of Brazil. Brazilian coffee-growers are now in a position—and this is exactly what they have been striving to sit back and to assume a take it or leave it attitude In addition, they continue to work towards the perfection of the technical machinery of coffee defence and the extension

of their markets through appropriate propagands.

"What we have written above is not intended to reopen a discussion on the propriety of the present Brazilian coffee policies. Producers and distributors will never agree on this subject, because their interests are different. The time will come to reconsider matters, that is, when we shall be better informed in regard to future crop prospects. We are openinformed in regard to future crop prospects. minded on this question. Common-sense tells us that coffee plantings must be greatly stimulated by present prices, but experience shows us that although the number of coffee trees has been more than doubled in São Paulo during the last twenty years, the average output of this State has not increased, and that in particular there has been only one other large crop—that of 1923-24—aside from the present one, comparable to

that of 1923-24—aside from the present one, comparable to the bumper crop of 1906-7.
"Will history repeat itself? Will frost, drought, excessive rains or the decreasing productivity of the older trees become decisive factors in the reduction of favourable crop prospects in the future as they have done with almost depressing regularity in the past? Brazilians believe they will, and it is this deeprooted belief which is at the bottom of their present attitude. rooted belief which is at the bottom of their present attitude. Whether they are right or wrong, the future alone can tell. Meanwhile, Brazilians, holding all the threads of the situation in their hands, do not see why they should not make hay while the sun shines, and why they should not sell their coffee as high as they can. Co-ordination of all their diversified interests in one hand, plus able leadership and the fact that two-thirds of all coffee is grown in Brazil, places them in a favoured position. Their recent actions appear as a clear indication of the road which they intend to follow, and only large supplies in the hands of consumers or consuming markets could check them. We of consumers or consuming markets could check them. We believe in higher coffee markets."

coming difficult to estimate what a normal crop in São Paulo would be. The trees in bearing before 1922 might be expected to give the average vield which had been realised from 1020-26, for though in that period the effects of the 1918 frost still lingered and the weather was unfavourable, allowance must now be made for the increased age of the trees: at 40 arrobas per 1000 these 950 million "old" trees might be expected to give a normal crop of 9.5 million bags. But it would be most unusual to have a normal crop in the second season after such a bumper crop as that of 1927–28. Of the 200 million new trees, which had been planted between 1922 and 1926,* three-quarters had borne heavily in 1927-28, but with the vigour of youth they would recover from the strain much quicker than the older trees. At a normal yield of say 80 arrobas per 1000 they would give a crop of 4 million bags, but something less than this might be anticipated for 1929-30. In all, the normal São Paulo crop might be put at about 13-14 million bags, but the 1929-30 crop, by all precedents, ought to be considerably less than this, perhaps not more than 10-11 million bags. The rest of Brazil might be expected to produce about 5 million bags, making a total of 15-16 million bags. If exports continued to increase from the 15 million bags disposed of in 1927, there might be, on this basis, a further small reduction of stocks, and the carry-over on July 1st, 1930 might be below 6 million bags, so that with the 5 million bags of the visible supply, the world's stock position would have returned to normal, and the only difficulty would be an excess of capacity at normal yields to the extent of I or 2 million bags, plus the crop of the new trees planted from 1926-27 onwards and still to come into bearing. The Institute could hardly blind itself to this excess capacity in the future, but in the future all kinds of other events might ensue, such as frosts and droughts. Even on a much less favourable valuation of the various factors considered above, it would have been unreasonable in July 1928 to estimate the interior carry-over on July 1st, 1929 at more than 10 million bags, making a total world supply of 15 million bags. This would have increased slightly by July 1st, 1930, if the 1929-30 crop be reckoned as nearer the normal, and while the carrying of this surplus of 5 or 6 million bags over the normal world stocks for two years and more must be reckoned a regrettably expensive burden, the benefits might ultimately outweigh the drawbacks, on the assumption that God, as a Brazilian, would

* Those planted later than the 1925-26 season would not yet be in bearing in 1929-30.

ultimately contrive some solution for this problem of excessive stocks at the same time as he tackled the problem of increasingly excessive productive capacity!

The whole picture was, however, absolutely changed by the flowering of the 1929-30 crop. Farmers had, of course, realised during the preceding months that the trees seemed to have recovered to a remarkable extent from the effects of the 1027-28 crop, and that there was an abundance of new wood. But the actual extent of the flowering seems to have taken everyone by surprise. By October, it was clear. humanly speaking, that the 1929-30 crop would be very large indeed: the evidence was such that by nothing less than a miracle could it be below normal. All the forecasts, conservative and otherwise, had now to be radically revised, and in fact completely discarded. If the Brazilian defence scheme had now to face another 17-18 million bag crop for São Paulo, together with 8-9 million bags from the rest of Brazil, as seemed quite possible, the carry-over on July 1st, 1930 might be well over 20 million bags, and even with the lowest estimates of the carry-over on July 1st, 1929, and a total 1929-30 crop of only 20 million bags, the carry-over would be at least 12 million bags (the São Paulo Institute persisted well on into 1929 in maintaining its estimate of the coming crop at 14 million bags, which with 6 million bags for the rest of Brazil would give a total crop of 20 million bags). But by October there was no excuse for the earlier under-estimate of the 1928-29 crop, and there was no question that exports were declining considerably as compared with 1927. Hence the idea that the carry-over on July 1st, 1929 would be only 7 million bags, was becoming an untenable proposition: it could not be much less than 10 million bags, and was to prove to be 10.9 million. Therefore, even if the Institute honestly believed in the validity of its estimate of 14 million bags for the coming crop, the carry-over on July 1st, 1930 could not be less than about 15 million bags, while, at the peak, finance would have to be found for nearly 20 million bags in São Paulo alone.

That the Institute made no change of policy in the fourth quarter of 1928 seems almost incomprehensible to any sane man. It may therefore be of interest to reproduce here certain portions of a speech * by the President of the Institute in May 1929 in which he defended his policy. "I am replying to those who think that lower prices would stimulate a larger volume of sales. Not a single bag more would be sold. It is only natural that if the

^{*} Translation by the Medeiros Bulletin.

world's consumption amounts to 24 million bags in a year, the whole of our bumper crop of 28 million bags (1927-28) cannot be sold at once unless we should prefer to permit the importing centres to accumulate heavy stocks and control the market at will, instead of our keeping the price-control in our hands in order to safeguard a price which covers our cost of production. Shall we reduce prices in order to annihilate ourselves? Oh no. Then why should we lower them? To prevent the use of substitutes? The increase of coffee consumption does not permit one to conclude that this is the case at present. To let our prices decline in order to sell more coffee would be equivalent to concluding that buyers were ignorant of economic laws, for they would expect to make money when prices rose again; while it would be a silly thing to accumulate stocks of an article whose producers, afraid of over-production, were forcing prices down. Who has the right to say that there is an overproduction of coffee?

"If we have a 9 million bag stock which is expected to decrease to 8 million before the new crop is picked, and if we consider the fact that this abnormal surplus was caused by an equally abnormal yield, why expect overproduction to take place in the near future, as it is well known that coffee plantations are subject to countless dangers such as droughts,

frost and pests? "However, let us accept the possibility of over-production as an event about to take place. Will it not still be possible for us to lay the cards on the table and see who is in a position to produce at lowest costs? If we win, then we will have the opportunity to sell our goods at lower prices because the planters will have had time enough to recover their strength and therefore will be in a better position to sell at lower prices. The mere fact that Santos exported less coffee in 1928 than in 1927 is no argument against coffee defence, as the loss in quantity was largely compensated for by the higher prices at which the coffee was sold. The additional quantity, which would otherwise have been sold, represents a great profit for the growers. The main thing in all this business has been favourable to us: we received more money for our coffee and the world's consumption increased."

The total disregard of the realities of the situation which this speech displays might be explained by the supposition that Dr. Telles and the leaders of the Institute were merely blind fools. But such an idea is untenable, for they were undoubtedly clever and able men, well supported by lifelong experts in all the various

aspects of coffee production and marketing. The speech must therefore be interpreted as for consumption by an easily deluded public. The only real truth which it reveals is, that the Institute had decided to gamble on the timely occurrence of a frost which would destroy the impending bumper crop. Now undoubtedly there was a widespread popular belief in São Paulo that there would be a great frost in 1929. But it is incredible that the leaders of the Institute should thus have gambled on the weather unless there were overwhelming reasons for so doing. Economic and commercial considerations provide no such reason, but this is not true of the political situation, and the answer to the riddle undoubtedly lies there. The precise character of this political necessity, however, is doubtful, for both foreigners and Brazilians give different explanations. The reader may take his choice of the following:

(I) That Dr. Julio Prestes, then President of the State of São Paulo, was determined to maintain prosperity, at whatever ultimate future cost, until after his election as Federal President. (The elections would take place in

October 1929.)

(2) That Dr. Washington Luis, then Federal President, was determined to maintain high coffee prices in order to maintain exchange (the stabilisation of exchange was, of course, the corner-stone of his policy), and therefore encouraged the Government of São Paulo to maintain coffee prices, assuring them of his support in every possible way, including finance. (The Government of São Paulo, of course, wanted high coffee prices as much as the Federal Government wanted the maintenance of exchange: there is here no suggestion of coercion by the Federal President.)

(3) That the São Paulo politicians dared not allow the price of coffee to decline for fear of the hostility which would be aroused amongst the planters: they had to go on, because they

could not turn against the planters.

(4) That as a body the São Paulo politicians felt that they must give the planter something in return for the heavy transport tax of I gold

milreis (27d.).

(5) That as individuals, the São Paulo politicians and their friends were nearly all making so much money out of the defence scheme in one way or another, that they were extremely loath to make any change.

These explanations are not incompatible with one another, and personally I imagine that all have a germ of truth, but that no single one contains all the truth. The obvious dictates of commonsense demanded that prices should be

lowered with the triple object, first of inducing merchants, speculators, and ultimately perhaps roasters, to assist in the carrying of the gigantic stocks in prospect, secondly of stimulating actual physical consumption, and thirdly of stopping new planting. In addition, the Institute should have ensured that the financing of the new crop would be on the lowest possible scale, and deaf ears should have been turned to complaints of impending bankruptcy on the part of the owners of the highest cost fazendas. In these ways the financial burden on Brazil would have been greatly lessened, and with a slice or two of good fortune the storm might conceivably have been weathered, whereas without thus shortening sail to the barest minimum required for steerage way, the ship was almost bound to founder. Nor is this programme greatly tainted with the wisdom which belongs to after events; on the contrary, it was the only policy which could reasonably be pursued, and was as obvious as it was reasonable.

If its decision to carry on the existing policy in hopes of a miracle, has little to commend it, the Institute's methods of carrying on deserve the greatest admiration and applause. consuming markets naturally placed the most serious interpretation on the change in the outlook, and doubted the Institute's ability. as well as its willingness, to finance such vast quantities of coffee. Bears became numerous and active, especially in New York, and the attack was led by what came to be called the Boston Group. There is still considerable doubt as to the identity of these operators. number of Boston shoe manufacturers are said to have formed the nucleus of the group, but some dealers maintain that these men were largely figure-heads, and that the real operators were the leaders of the Institute and their friends. Operating chiefly in the Rio contract, they had bought heavily during the rising prices of the beginning of 1928. Apparently they maintained their commitments, but when the outlook became so dangerous in the autumn, they began to unload, and to build up a bear position, hoping perhaps to make good in that way the loss on their purchases. The bear movement reached a climax in the latter part of October, as heavy supplies from the mild countries were pressed on the market. Between October 15th and October 25th, the Santos D Contract on the New York Terminal Market declined from 21.93 cents to 20.96 cents, and, according to Messrs. Nortz, Central American coffees could be bought at 1-1 cent below Santos coffee. On the other hand, the milreis quotation at Santos remained unchanged.

Brazil indeed made no attempt to sell coffee. Messrs. Nortz' circular dated November 2nd summarised the situation as follows: "The last two weeks marked another stage in the struggle between what we may term controlled and free coffee. In the history of commerce we do not think that there is any parallel to be found to what happened in the coffee market during this time, when Brazil, especially São Paulo, visualised in consuming markets as staggering under the load of about 16 million bags of coffee now stored there, continued to present a serene and almost unconcerned front to what, to all intents and purposes, virtually amounted to a concerted bear attack by consuming markets on Brazilian control. . . . Brazil meanwhile went right on as though nothing was happening, picking up cheap lots of coffee that were sold here below the Santos parity." Eventually the attack spent itself, and prices began to rise again, for, as Messrs. Nortz pointed out, once the initial onslaught failed to precipitate a real collapse in prices, and therefore a collapse of the Institute's control, its continuation was ill-judged, because the 1928-29 crop had already been successfully financed, and therefore, at any rate for the next few months, the stock position in Brazil could not fail to improve, since the new crop was so far short of the world's annual requirements.

Undoubtedly the Institute had the moral support of public opinion in São Paulo for thus flouting common-sense. The nature of Paulista public opinion has already been discussed, and its significance must be carefully interpreted. But the general line of argument was that since the Institute had very successfully handled the 1927–28 bumper crop, there was no reason to entertain any fears as to its ability to handle even a bigger crop if necessary. A few of the more intelligent and better informed planters and commissarios had begun to shake their heads, and wonder how it would all end, while the higher cost producers were, as we have seen, somewhat pressed for cash, and not too well pleased with the Institute for that reason. But in the view of the latter, the remedy was more and not less restriction, higher and not lower prices. By this time the Institute's control had come to be looked upon as unshakable, and its resolute handling of the bear attack provided one more proof of this. The need for piling up a few more million bags was openly admitted, but the significance of such huge accumulations appears to have been completely overlooked. As to finance, if more was needed, London would supply it, for the bankers and the English investor were already so deeply committed that, however fearful they might become, they would have to supply more money in order to safeguard their existing commitments. Admittedly this second big crop made things awkward, but few realised that in combination with the new planting, which was larger than ever in this 1928–29 season, it meant disaster sooner or later. The foreign observer realised this, but so long as the Institute had sufficient resources to finance the stocks of coffee and to buy back into control all coffee which was not saleable at the current price, all bear attacks were bound to fail.

For the first four months of 1929 the Santos official price continued at 33\$500. The New York spot price averaged 24.0 cents in January, 24.6 cents in February, 24.8 cents in March and 24.5 cents in April. There had been considerable drought during the closing months of 1028, as the rains were unusually late, and this was loudly proclaimed by Brazil as pointing to an unusually small crop in 1930-31, since the development of new shoots would be checked. When the rains did come, all records were surpassed, and now the cry was that the earlier ripening berries had been dashed off the trees, so that the 1929-30 crop would not be nearly so great as the flowerings had indicated, the beneficial result of these rains in terms of the 1930-31 crop being conveniently forgotten. It should be understood, however, that the Institute leaders and their experts were perfectly well able to appraise the effects of these weather conditions; they knew, as did the expert buyers in the world market, that the general dimensions of their problem remained unaltered, except in so far as every day added to the certainty that the coming crop would be very large: whether it was to be a million or two bags less or more made no difference whatever. The significant feature is that the amount of popular attention paid to such matters, indicates either how little the ordinary coffee planter comprehended the position, or that he was beginning to do so and wished to throw as much dust as possible into the eyes of the rest of the world. The former alternative is probably nearer the truth, though as the months passed by fears and forebodings undoubtedly increased. Farmers and commissarios began to open their hearts to one another on their verandahs, even if they said no word in public. The difficulty was to know what they should do. A farmer could sell his fazenda at a very high valuation, but it required very great conviction to persuade him to take such a drastic step. Some few did so, and invested the proceeds outside the coffee industry or abroad, but in most cases the farthest such men were prepared to go was to

stop new planting, to limit their own personal expenditure, and to build up their financial resources. A commissario, however much he was convinced of impending trouble, was in an even more difficult position; he could refrain from further business, but he could not get clear of existing commitments until all the coffee which he owned, or upon which he had advanced money, had been released from the reguladores, and the period of detention was at this time about twenty months. Thus few took any decisive steps, and the general situation was completely unaffected by the existence of a small, if growing, nervous minority.

It is now possible to see that the turningpoint really came about April 1929. Towards the end of March and through April, exchange began to exhibit signs of weakness, and, with the decreasing volume of foreign borrowing and the increasing tension of credit conditions both in the United States and in Europe, which accompanied the last stages of the Wall Street boom, the Federal Government had no recourse but to order the Banco do Brazil to contract credit. This forced the banks generally, and the São Paulo native banks in particular, to restrict their loans and discounts. The São Paulo banks had, in fact, expanded credit more than was desirable, even from their own point of view. A ratio of 30 per cent. cash to deposits is normally looked upon as the minimum compatible with safety in the general commercial conditions of São Paulo. This limit had been passed in the effort to finance the 1927-28 crop, and the ratio had fallen to 25.7 per cent. at the end of 1928; now in April 1929 it was only 22 per cent. But the really dangerous feature was the character of much of their investments, for three of them, at least, had very large coffee commitments, which were virtually realisable only as and when the coffee was released from the reguladores. The period of detention had been steadily lengthening, and a large part of their resources was thus becoming insufficiently liquid: they had been borrowing short and lending long. Consequently, when they were forced to retrench as the result of the Banco do Brazil's operations, the ordinary trader was their chief, because their most accessible, victim. Ordinary credit became extremely tight in São Paulo, and this was reflected in a general slowing down of the business boom. Imports of such articles as automobiles fell off sharply from May and June onwards, not only because traders could no longer afford to carry such heavy stocks, but also because they found that the rate of consumption was falling rapidly.

This brings us back to the coffee planter's

position. As the months passed by, the cash position of at any rate the average and high costs producers was tending to become more and more strained. Interest charges on the large sums advanced against the 1927–28 crop, which in the autumn of 1927 had seemed a mere nothing, had grown into a heavy load as the months went by with such a small reduction in the outstanding stocks, for the sales of this crop were slower than had been expected, and showed no signs of regaining the 1927 rate. As we have seen, the advances obtained on the 1928-29 crop were insufficient to cover the costs of production, unless a fazenda was fortunate enough to have a comparatively good crop, and as the aggregate expenses of harvesting the huge crop of 1929-30 came into closer perspective, many farmers found it necessary to cut down their living expenses, or at least to eschew all Hence the avoidable luxury expenditure. falling off in the demand for such articles from April-May 1929 onwards. But the difficulty was not only, or chiefly, that of finding sufficient cash for the next two or three months until the crop could be consigned to the warehouses and advances obtained upon the bills of lading. The real trouble was the new regulations as to the delivery of coffee to the reguladores, which the Institute introduced in February to apply to the coming crop. This was the one solid measure taken by the Institute to prepare for the coming storm. It was an exceedingly clever move, because its object could be represented as something quite different from its real object, and as something which would commend itself to all fair-minded men. Under the existing arrangements, the earlier a farmer could get his coffee to the warehouse, the sooner it was released, since release took place according to the date of shipment. There was, therefore, intense competition between the planters to ship their crops before their neighbours, and one method of achieving such priority was to over-estimate the coming crop and so obtain a larger quota, thus securing a larger share of the available wagons. Another method was to bribe the local station agent and so secure preferential treatment in the supply of wagons: all along this had been a widespread scandal, but obviously it was most difficult to prevent, even if the Institute and the railway companies had desired to prevent it, as, in fact, they rather half-heartedly did. Moreover, apart from these irregularities, the system had more serious drawbacks: it placed a great strain on the railways during the autumn, and the need for haste tempted the farmer to hurry through the preparation of his coffee at the expense of its quality. The Institute now solved all these

problems by introducing the so-called "series system," under which the farmer's crop as estimated was divided into a series of equal parts, and each series was to be sent to the regulating warehouses one after the other but in an irregular order, while they would be released from the warehouses in regular order. Thus, in the regulations as finally issued for the 1929-30 crop, the crop as estimated, and each farmer's crop, was divided into twelve series. lettered A to L. Series L had to be despatched first, then any two series which the farmer liked, then Series K, and after that the remaining series could be despatched at the farmer's convenience. As regards the speed of despatch. each railroad was to advise its stations of the percentage of the crop which it should receive for shipment each month "in accordance with the possibilities of warehousing and transport." When the time came, the different series would be released not in the order received, but strictly in alphabetical order. Thus in the first place there was no need for any grower to scamp the preparation of his crop for the sake of early consignment, and in the second place, farmers would gain nothing by over-estimating their crops, for if a farmer over-estimated, he would have no coffee to consign under the one or more series to be despatched last, and would have to wait while these series were being released, until he could obtain the release of his series K and L. If the planter made a correct requisition, his coffee would be released regularly and in even quantities, but if he exaggerated the size of his crop, then the release of part of his crop would be delayed; if he under-estimated, he could always get his quota revised.* The series system was an extremely clever solution of a difficult adminis-

* A numerical example facilitates an understanding of the system. The following table, taken from the Medeiros Bulletin, shows the case of three growers, each producing 3000 bags: the first requisitions correctly, the second exaggerates his crop to 4400 bags, and the third to 6000 bags.

QUANTITY OF BAGS			QUANTITY AND ORDER OF			
DESPATCHED IN EACH SERIES.			ARRIVAL IN SANTOS.			
Series.	1st	2nd	3rd	1st	2nd	3rd
	Planter,	Planter.	Planter.	Planter.	Planter.	Planter.
A B C D E F G H I J K L	250 250 250 250 250 250 250 250 250 250	375 375 375 375 375 375 375 ————————————	500 500 500 500 500 ———————————————————	250 500 750 1,000 1,250 1,500 1,750 2,000 2,250 2,500 2,750 3,000	375 750 1,125 1,500 1,875 2,250 2,250 2,250 2,250 2,250 2,625 3,000	500 1,000 1,500 2,000 2,000 2,000 2,000 2,000 2,000 2,000 2,500 3,000

trative problem, and in preventing the sacrifice of quality for speed, the idea deserves study by other industries, quite apart from any scheme of actual control over price or output.

But the real object, or rather importance, of this new system from the Institute's point of view was quite different, though it would probably have been introduced anyway, since it possessed the great advantages outlined above. The essence of the plan, however, from the Institute's point of view, was that it reduced the peak demand for advances from the Banco do Estado. Hitherto the farmer had shipped the whole of his crop at the earliest possible moment, and as fast as he obtained the railway's receipts, he presented them through his commissario to the banks, the Banco do Estado having in effect to take care of any remainder which the ordinary banks might leave. But under this series system, shipments to the warehouses could be spread out over a longer time, limited, in fact, only by the physical storage capacity on the fazendas or at up-country towns, and by the farmer's willingness to forgo the cash advances which he would have been otherwise able to obtain. Actually the physical storage capacity was a serious limitation, but the system did nevertheless result in the arrival of the crop at the reguladores much later than would have been the case under the old arrangements. Meantime sales in Santos were, of course, proceeding, and hence the peak load requiring finance was smaller. The farmers had to manage as best they could by getting advances from their commissarios. But the commissarios already had such large commitments that they were most unwilling to advance money to the farmers except against bills of lading, and these the farmer could not provide. If bills had been forthcoming, the Banco do Estado could not have refused to finance whatever was offered it, but by delaying the supply the Institute forced the farmer to help carry the financial burden. Hence many farmers, in July, August and September 1929, found themselves obliged to sell their coffee up-country at very cheap prices relatively to the current Santos price. In the end, these forced sales were to prove their salvation, but at the time there was great indignation and much discontent, though few realised the halfhidden way in which the series system was contributing to their difficulties, which would, however, have been sufficiently serious quite apart from that.

As the actual picking confirmed the magnitude of the crop, fears became more and more widespread lest the Institute should be unable to control the situation, and provide the

finance required, even at the lower rate of 80-90\$000 per bag, which was all the banks would give. But those who took the trouble to analyse the situation, could and did argue that, provided sufficient finance was available, there was no reason to anticipate any breakdown in 1929. Under the series system it seemed most improbable that the peak of the stocks to be carried would much exceed that following the 1927-28 crop. This conclusion was to prove wide of the mark because based on inaccurate statistical information and estimates; thus the carry-over on July 1st was reported by the Institute at the time as 8.6 million bags, whereas later another 1.7 million bags was to be discovered, and even towards the end of July the world market still thought the São Paulo crop would not exceed 14-15 million bags, whereas it was to be 19 million. But assuming that this conclusion as to stocks was reasonably correct, it could be and was argued that what Brazil could finance in 1927 could be financed in 1929. For this second erroneous conclusion there is less defence: it should have been realised that the period of financing required was now much longer, and that therefore a given quantity of money would finance a much smaller quantity of coffee. Moreover, there is good reason to believe that the foreign banks, and to a lesser extent some of the native São Paulo banks, desired to reduce their coffee commitments rather than expand them indeed the foreign banks appear to have been carrying very little coffee at this time—while more account should have been taken of the demands which the São Paulo trade boom had made upon the country's banking resources, The fact remains, however, that merchants and all buyers of coffee on the world's market were misled: of an ultimate breakdown they had little or no doubt, but they could not see why it should occur during the present season.

Nevertheless, there was a good deal of anxiety and nervous tension, both in Brazil and abroad, until the middle of September, when the President of the Institute made a speech which in its way has become famous. The occasion was the now annual convention of the coffee-producing States, which in itself is of little interest as no important changes were made in the existing agreements. Dr. Telles, however, took the opportunity to examine at some length the policy and performance of the Institute, claiming that the latter had been as successful as the former was sound, and concluding with the most definite assertion that no change of any description would be made in the policy or detailed operation of the Institute's control, because no change for the better could

be devised, and none was required. This speech was hailed in Brazil, and especially in São Paulo, with the utmost satisfaction: at the moment, shortage of cash might be making things difficult for many planters, but all would clearly come right in the end, and those who had been getting nervous lost any claims to respectful attention by their fellow-planters, if they were not themselves converted, as most of them Buyers, both at home and abroad, were also undoubtedly impressed, while anticipations that the crash would not come for at least another year were confirmed. They concluded that the Institute possessed, or had been definitely promised, sufficient resources to finance the current crop, however large it might prove to be. Dr. Telles never said this definitely and specifically, but it was undoubtedly a legitimate deduction from what he did say, and from the whole tone of his speech. Even those who had reached the conclusion that the longexpected crash was imminent, were completely put off their guard, and revised their business policies accordingly. Hence when the crash came three weeks later, it was almost universally and completely unexpected.

How Dr. Rolim Telles could have said what he did, when he did, remains something of a mystery. In a defence which he himself made some months later, he laid the blame for the collapse at the door of the Federal Government and the Banco do Brasil, who, he said, in the end withheld funds which they had promised to the Banco do Estado. In Brazil and elsewhere, however, this explanation does not seem to have carried very widespread conviction, for even to-day other explanations are commonly offered by persons of standing and repute. The most important of these other

I. That he had misread the accounts and balance-sheet of the Institute and the Banco do Estado, and genuinely thought there was plenty of money. (In support of this theory, it is said that he was advising his friends to buy coffee up to the very last moment, and there certainly was a heavy bull account on the Santos Bolsa, though it is, of course, impossible to say who was concerned.)

explanations are:

2. That Lazard Brothers had not yet definitely refused a further loan or credit, and that he thought they would eventually grant one.

3. That both Lazard Brothers and the Federat President had already refused, and that the whole speech was simply and solely bluff, with the object of obtaining a little more time in which to try and find more money from somewhere.

With regard to the first, although it must be admitted that the art of accounting is not too well understood by all departments of the Brazilian Government Service, yet Dr. Telles had a great reputation for business efficiency and acumen, and it seems most improbable that he could genuinely have made such a mistake on such a crucial issue. Nor am I inclined to believe that the whole speech was mere bluff, primarily because such bluff could not possibly have secured sufficient time for the completion of any new negotiations; for a week or ten days before the actual crash, the Banco do Estado had been telling customers offering bills to come back in a day or two's time, and this suggests that when Dr. Telles made his speech, there was actually little more than one week's supply of money left. This action on the Banco's part, however, seems to me to reinforce the idea that Dr. Telles, when he made his speech, had either already made some arrangement which he thought was secure, or that he was still in negotiations of some sort, and was still definitely hopeful, even confident, of success. The issue therefore appears to be whether he was in negotiations with the Federal Government, as he himself later affirmed, or with Lazard Bros. The latter was commonly believed at the time of the crash, and in Special Memorandum No. 32 of the London and Cambridge Economic Service (Memorandum No. 24 of the Royal Economic Society's series), of which the present writer was a joint author, the following brief explanation was given: "Gradually it became apparent (after the crash) that, owing to the refusal by a firm of European bankers of a renewal of customary advances. due to the Hatry affair, the Institute was in financial difficulties. . . ." The reference here was to the credit of £5,000,000 granted by Lazard Brothers in September 1927 for a period of one year, and which had been renewed on similar terms in 1928. At the time of writing the above sentence, the author believed that the crash was caused by Lazard's refusal to renew this credit for another year: the coincidence of dates was extremely suggestive. and he had no information suggesting that the credit had been renewed. Since then, he has learnt that the credit had in fact been renewed again during July 1929, to fall due in instalments between September 1930 and January 1931. The reference intended in the above statement was, therefore, completely erroneous. But it still remains true that many persons even to-day believe that Dr. Telles was counting on a further loan or credit from London. It is said that at the time of his speech Dr. Telles was still hoping to persuade Lazard Bros.

to issue the fourth series of the gold mortgage bonds according to the scheme originally contemplated in 1927. After careful investigation and inquiry, however, I have every reason to believe that such negotiations as were in progress did not justify hopes that any immediate assistance could be expected from that quarter, and of course hopes of this order alone could have justified Dr. Telles in making his speech on these grounds. I therefore find no reason to doubt the truth of Dr. Telles' own explanation, namely, that he thought he had made, or was on the point of making, some arrangement with the Federal Government and the Banco do Brasil, and that he was disappointed at the last moment. In a way of course the matter is not important, for at least the essential facts are quite clear, namely, that the crash took place when it did, because at that moment the Institute finally ran out of money, and the reason why the world at large was so wrong in its forecasts as to the date of this event, is that the world thought the Institute still had, or could certainly obtain, sufficient money to finance at least the 1929 crop, whatever its size, when in fact by October 11th the Institute had no money left and was unable to obtain more. This is the essential point: the explanation of Dr. Telles' speech and of the inability of the Institute to obtain further loans is of quite secondary importance.

The actual history of the crash can be told in very few words. Although for a week or so the Banco do Estado had been turning away customers, telling them to return in a day or two, this seems to have aroused little comment and no excitement, presumably on account of Dr. Telles' speech. Then, at the morning session of the Santos Bolsa on October 11th, the broker who usually conducted the Institute's public operations sat quietly in his place and made no bid to buy. But, while very astonished, the market appears to have thought that he was engaged upon some new bluff, and no attempt was made to call it by offers to sell at reduced prices. At the afternoon session. however, he again remained silent, and the market suddenly realised that the end had come. The price fell by the full limit allowed at any one session, and this was repeated at succeeding sessions, New York and other markets of course following suit. Though the headlong fall was soon checked, the price continued to decline sharply and almost continuously, so that by the end of the year the New York spot price was below 15 cents as compared with 22.5 before the crash, and the Santos official quotation stood at 20\$750 as compared with 33\$500.

The defence of coffee remained primarily in the hands of the São Paulo Institute until it was taken over by the Federal Government after the revolution at the end of 1930. But this change of leadership and responsibility makes no difference to the general theme of the last two years, which is, in brief, Brazil's struggle to get out of the morass into which she had fallen. To say that the crash came at a very awkward time from Brazil's point of view is really to put the cart before the horse. If world economic conditions had been normal, it seems likelyt hat the crash would not have occurred when it did, for it is reasonable to suppose that the Institute would have been able to borrow more money. World economic and financial conditions precipitated the crash, and consequently Brazil has found these conditions against her in her struggles to reach dry land. But there can be little doubt that Brazil really has cause to be thankful that the crash came when it did, for if she had been able to obtain more money for coffee defence, she would have waded further into the mire, in an effort to cross the morass rather than to turn back, and the morass could only have been crossed if not one but a series of extraordinarily favourable events had occurred. For if the price of coffee had been maintained at a level well above 20 cents, new planting would undoubtedly have continued at the preceding rapid rate, and the expansion of a productive capacity, already excessive on the basis of normal yields, would have continued until the price did fall. Equally since productive capacity was already excessive in 1929, further additions to the already vast accumulation of stocks would have been unavoidable. The crash might have been postponed if world financial conditions had been normal, but it could not have been avoided, and postponement would only have made a bad situation cumulatively worse, unless there had occurred a series of disastrous frosts or droughts, or, which would be just as miraculous, a sudden and great increase in the world's consumption of coffee.

The crash in October 1929 and the world conditions which, in a sense, caused it and have continued ever since, therefore made it necessary for Brazil to cut her losses on the defence policy, and as always in such circumstances the loser is continually tempted to defer the evil day, in the hope that somehow the loss will be less severe, or at least more endurable. The Brazilian character is not one which readily faces the inevitable, and the Brazilian mentality is specially fertile in the devising of schemes whether for the purpose of reaping

what has not been sown, or, as in this case, for the purpose of avoiding the reaping of what has been sown. Consequently during the last two years Brazilians may be said to have been concentrating all their attention on the discovery of ways round the difficulty, and never to have faced the issue whether what would amount to a serious surgical operation might not really be better than a long-drawn-out curative treatment.

In fact, however, this simile is inadequate. and it would be more correct to say that so far as this generation is concerned, Brazil, or at any rate São Paulo, has only had the alternative of suicide. If the whole policy of control had been abandoned after the crash, the flood of coffee thus released would have swept away almost every planter, every commissario, every Brazilian bank, and the financial standing of the Federal and State Governments. Every manufacturer and shopkeeper would have been overwhelmed, and most severe losses would have been suffered by foreign trading firms. It is true that the mass of the people would not have suffered actual famine: no one need ever starve in a land where physical necessities are small, and the bounty of Nature so large. But the whole economic organisation would have been disrupted, and the present generation of Brazilians irretrievably ruined. The advantage might have been a clear field for the reconstruction of a new economic organisation by what would amount to a new business community. It is possible that such reconstruction would have gone a very long way in, say, five to ten years, and that Brazil would in fact have been more prosperous than she actually will be within the same period under a curative policy. But the present leaders of Brazilian politics, industry and commerce would have been ruined, and it is these men who are in control of Brazil's policies. To ask men to ruin themselves on the chance, for it is no more, that in ten years' time their country would be better off and their own fortunes on the way to recovery, is to ask too much of any nation, especially when the alternative also carries the chance that some unforeseen event may relieve their difficulties and hasten the patient's recovery. Were it probable that the existing stocks, if released and sold, would be physically consumed, the problem would be entirely different. If the existing stocks would have been physically consumed within, say, two years, Brazil might have done better to sell them, even though the price were to fall to zero; the older high cost plantations would undoubtedly have been

ruined, but this will happen in any case: the rest might have been able to hold on somehow for this relatively short period. But while world consumption would probably increase faster with very cheap coffee, it can be regarded as certain that the increase would not be more than 10-15 per cent. a year at the outside. whatever the price. Hence the larger part of even those stocks existing in 1929-30 (a surplus of about 24 million bags as compared with a consumption of 15 million bags) would have had to be held by someone somewhere for a period of several years, during which the price would have remained exceedingly low, and they might as well have been held by Brazil as by foreign merchants and speculators, for any profit which the merchant would have made would thus remain with the producer and could be set against his total losses, while in the long run it makes no difference who holds the stocks from the consumer's point of view. The abandonment of all control, and the release of the existing stocks in Brazil, would not have been a wise policy immediately after the crash, and the same conclusion still holds to-day. Appeals to the authority of economic laws and principles in support of the thesis that Brazil should return to the orthodoxy of laissez-faire, are almost certainly as unsound as they are humanly speaking unreasonable. The unconscious control of laissez-faire may be more satisfactory in the long run than any form of conscious control however cunningly operated: that is an open question. But when artificial control has brought about bankruptcy, there is a strong presumption that it must be continued at least through the major part of the resulting process of liquidation.

These general introductory remarks will, it is hoped, serve to indicate the author's general perspective in describing the history of Brazilian coffee during these last two years, and in the following pages the reader will be able to judge how far his perspective has been correctly formed. The general narrative will now be

resumed.

Dr. Rolim Telles resigned his dual office of Secretary of Finance for São Paulo and President of the Institute on the first day of the crash. A section of the Press undoubtedly voiced a large section of public opinion in declaring that he was simply meat thrown to the lions, and that those in higher places were the real culprits. But the truth on this point depends upon the truth as to the immediate causes of the crash, and that is not yet available. Dr. Telles was succeeded by Dr. A. C. Salles, Junior. The first move of the São Paulo Government was to appeal to the Federal

President for either an issue of notes or, alternatively, a moratorium, the idea being to ease the pressure of distress sales on the Santos market and also up-country. President Washington Luis refused both suggestions, presumably on the ground that São Paulo had made the bed and must now lie on it, and that he could not sacrifice the interests of the rest of Brazil on behalf of a single State. At first Paulista opinion was very angry, but as the first shock passed away, people began to realise that neither proposal would really have been of much use in the long run, and after a time they came round to the opinion that he had kept his head well in a crisis when any precipitate action, however well meaning, might only have made matters worse.

It may, however, be argued, as some Brazilians now argue, that since the prosperity of Brazil as a whole,* as well as that of São Paulo, depends upon coffee and coffee prices, and since the crisis in coffee was bound sooner or later to involve the whole republic in disaster, therefore President Washington Luis should have taken over the whole defence of coffee when the São Paulo Institute could no longer carry on, and handled the whole situation with the combined resources of the Federal Government and the individual States concerned. If he had, through the Banco do Brasil, supplied enough credit for advances on coffee bills and for maintaining control of the Santos market, it might have been possible to avoid the crash, and to scale down prices gradually, thus reducing the enormous losses which producers and commissarios actually incurred as the result of the sudden collapse. Though Brazil would have suffered from such credit inflation, particularly in respect of her relations with the outside world, it is at least possible that such damage would have been less than the disaster which has actually occurred. The Paulistas were, from the republic's point of view, the worst possible people to handle the liquidation, because they are even to-day hardly awake to the enormity of the problem, and in the winter of 1929-30 they were so far from being so as to suppose that the only thing needful was a little more money wherewith to mend what was looked upon as a mere break in the market, though admittedly it was a most disconcerting and serious affair: thereafter the old policy could be resumed, and with it prosperity, even though the accumulated stocks might grow bigger and bigger. The year 1930 with its continuance of Paulista control proved in large measure to be a year wasted so far as the solution of the prob-

^{*} It may perhaps be repeated that coffee forms over 70 per cent. of Brazil's total exports.

lem was concerned, and it is at least possible that the Federal Government, mindful of its obligations to all the other States as well as São Paulo, and much concerned with the course of exchange, might have handled matters more forcibly and more wisely. Whether the Federal Government under President Washington Luis, himself a Paulista, would have handled the situation more forcibly and to better purpose than did São Paulo, is a question which must be left to those intimate with the political situation at the time. There is no doubt that President Washington Luis wanted above everything to maintain exchange, and therefore it might be thought that this would have driven him to take control of coffee prices.* It is said, however, that he had genuinely come to believe that lower coffee prices would mean such an increase in exports (as distinct from physical consumption) that the total value of the resulting dollar and sterling bills would actually increase. If this is true, it is most extraordinary, for all experience would have pointed to an inelasticity of the demand for coffee too great for any such happy result. Apart from this, it can only be supposed either that he under-estimated the probable fall of coffee prices, and therefore the effect on exchange, or that he felt that no measures could be taken with results which would justify the assumption of the burden by the Federal Government, so long as São Paulo could avoid an absolute breakdown.

Rebuffed by the Federal Government, São Paulo had to turn to foreign bankers. Negotiations were opened both in the United States and in London. The former appear to have been based on a scheme whereby United States bankers should lend money against stocks of coffee to be exported, stored in the United States, and sold only in that market. Though these negotiations continued for a short time after London had provided a £2,000,000 credit, they came to nothing, and there is little evidence that they ever reached a serious stage. £2,000,000 credit was granted at the end of November to São Paulo by a consortium of bankers under the leadership of J. H. Schröder & Co., who thus in a sense replaced Lazard Brothers as the Institute's bankers, though according to the Medeiros Bulletin, as late as November 12th† the São Paulo Government was still trying to persuade the latter to issue the fourth £1,250,000 of the gold mortgage notes in accordance with the old arrangements for a total issue of £5,000,000; these persuasions,

* As an English observer remarked to me: "Washington put all his eggs into two baskets: unfortunately they were in equipoise. If the eggs broke in one, down came the other." † The same issue of the bulletin reports the favourable progress of negotiations with Schröder's for a £3,000,000 loan.

however, failed, as was not surprising in the difficult conditions of the capital market at the time. The £2,000,000 credit, however, gave a breathing space for the discussion and arrangement of a comprehensive scheme for dealing with the situation: that was its standing in the eyes of both sides.

Before proceeding further, it will be as well to explain briefly the general results of the fall in the price of coffee which began with the crash on October 11th. The official quotation at Santos had fallen from 33\$500 per 10 kilos at the beginning of October to less than 21 \$000 in December. During that month, market intervention seems to have been resumed in some degree, and for the first four months of 1930 the quotation was held round 21\$000. Thus, for practical purposes, the value of a bag of coffee fell from 200\$000 before the crash to 125\$000 after the crash. The last of the 1927-28 crop was being delivered in Santos in October and the beginning of November, after which deliveries of the 1928-29 crop continued until June 1930. The owners of this coffee, then being delivered in Santos, whether producers or commissarios, had obtained advances, or paid cash and then obtained advances, to the extent of about 100 \$000 per bag. The loans on the 1927-28 crop had been current for roughly two years, so that the interest charges would total about 24\$000. In taking delivery, the owner would have to pay the gold tax, freight, warehouse charges, and commissario's commission to a total on the average of nearly Thus the seller incurred an absolute loss of at least 25\$000 per bag, for the coffee would not grade an average of Type 4, while the Santos official quotation was even now somewhat above the actual price obtainable over the tables. In most cases the producer had already spent in cultivation, or the payment of interest charges, any advances obtained on his current (1929-30) crop, while commissarios had made advances or bought coffee up to the absolute limit. The result was therefore that neither producers nor commissarios could repay the banks the The comadvances which they had received. missarios were, of course, directly and solely responsible for advances on such coffee as they owned, and they were directly responsible, as the acceptors of the bills of lading, for any default by the planters, though in this case they had the ultimate right of recovery from them, for what that was to be worth. Thus it is said that there was not a Brazilian firm of commissarios who were not heavily in debt to the banks at the end of 1929, and while the position would, of course, gradually right itself, this would inevitably be a very slow process, for all

the time the interest charges on all outstanding loans were steadily accruing. The planters had no cash, and most of them were indebted to their labourers, as well as to merchants and shopkeepers, who found themselves most heavily pressed by the banks. The policy, if it can be called such, of the banks intensified the general credit crisis. Credit restriction had begun, as has been said above, some time before the crash, but after the crash the banks vied with each other in the scramble for cash, just as the English banks used to turn from excessive daring to excessive caution in the periodic crises of the earlier part of the last century. By the end of 1929, the four native São Paulo banks had so far succeeded in their efforts as to be able to show a cash to deposits ratio of over 35 per cent., as compared with 22 per cent. in the previous April. The foreign banks also reduced their commitments, and only the Banco do Brasil was left to stem the tide, which it did to the small extent of which it was capable. But this accumulation of cash reserves does not alter the fact that the whole banking system was really frozen in stiff with the whole business community of São Paulo and Santos, and the ice has so far been slow to melt. That there has been no financial crisis and collapse is merely due to the fact that when all are frozen in together, no one dares to act precipitately.

The results of this financial freeze-up were evidenced in a number of ways. Planters who had been living in the city of São Paulo hurriedly disposed of, or shut down, their town houses, and retired with their families to their fazendas, thus cutting down their expenditure to as many milreis as before it had been hundreds of milreis, for in the country all they needed to buy for a time was such food as was not available on the fazenda. It is said that there were 100,000 high-class houses empty in São Paulo city at the end of 1929. Commissarios cut down their expenditure in so far as they were able, and the merchants and shopkeepers found their turnover sinking almost to zero. Imports in particular declined, for Brazil's imports, apart from fuel, mainly consist of constructional goods, including machinery, and semi-luxury articles, and exchange had fallen to 5.56 pence at the end of the year. Trade generally became completely stagnant, and the manufacturing industries of São Paulo very nearly idle. As regards the colonists on the coffee plantations, most of them appear to have been paid what was due to them on the 1929-30 crop, but the terms of remuneration offered for the cultivation of the next crop were such that many left the fazendas at which they had been working, to try their luck at other

fazendas, and many planters found themselves in difficulties for labour until these men returned, or other wanderers accepted the terms offered. Day labourers and odd job men were sacked wholesale; some of these too set out on a fruitless search for work, but the majority stayed on the fazendas working for their food, or subsisting as best they could, and as the first shock of the crash passed away, the planters reengaged them at the very low wages * which was all they deemed they could afford.

Such were the conditions in São Paulo. In other parts of Brazil the slump caused less dislocation because the boom had never been as great, owing to the much more moderate financial resources which had been available, and because, for example, the Minas planters are by nature a more canny and careful race. In São Paulo everything was considered to depend solely upon the successful negotiation of a new loan, and the Paulistas became almost jubilant when the £20,000,000 Coffee Realisation Loan was at last arranged in April 1930.

The general scheme of the loan was as follows. The stocks existing in the regulating warehouses in the State of São Paulo on July 1st, 1930, were to be pledged as security for the loan, the proceeds of which would be released to the Government of São Paulo (a) as to £4,250,000 against documents for 3 million bags to be purchased by the Government, and (b) as to the balance at the rate of fI per bag against documents at present pledged by planters to the Banco do Estado and other banks. The 3 million bags were to be termed Government coffee and the remainder Planters' coffee. The interest was provided by the creation of a new special tax of 3s. per bag upon arrival of the coffee in Santos, and the proceeds of the loan were to be used by the Banco do Estado for advances to the planters at the rate of £1 per bag free of any interest (the tax being in lieu thereof). The redemption of the loan was provided for by the sale of 137,500 bags per month, of which 25,000 bags would be Government coffee. Santos monthly entries were to be at the rate of one twenty-fourth of the aggregate of the estimated crops for the current and subsequent year, plus the 137,500 bags from stocks, subject to a minimum total of 833,334 bags, and subject to the maintenance of a minimum stock of I million bags in Santos: by this scheme it was sought to prevent any accumulation of surpluses from future crops. From the proceeds of the coffee sold each month, £2 ros. would have to be paid over for each of the 25,000 bags of Government coffee, and £1 per bag of the Planters' coffee; this

^{*} For figures see Section IV, p. 76.

totals an annual sum of £2,100,000, thus providing for the redemption of the loan by the liquidation of the whole existing stocks in ten years at the longest. With the proceeds of the loan the Government of São Paulo undertook to pay off all the outstanding temporary advances made by bankers in Europe and Brazil

against stocks of coffee.

Various aspects of the scheme must now be The first question is whether, from Brazil's point of view, the general principle of a gradual liquidation of the stocks over a number of years was sound. To this I personally return an affirmative answer, for the reasons given in the introductory paragraphs to this section: no other course was really feasible or reasonable in practice, and the period must be long because of the inelasticity of the world's physical consumption demand for coffee. The second question is whether it was necessary or advisable to borrow such a large sum of money in order to achieve this purpose. To answer this, it is first necessary to estimate how much new money was actually secured by the São Paulo Government. London, through a consortium of bankers headed by Schröder & Co., provided £8,000,000 and Switzerland £500,000, while £1,500,000 was offered by the London bankers in Holland, Sweden and Italy: thus Europe provided £10,000,000 in all. New York, through a consortium of bankers headed by Speyer & Co., provided 35 million dollars or, say, £7.2 million. Thus the total sum offered to the public was nominally about £17.2 million; the balance up to £20,000,000 was to be provided by the Banco do Estado, if more money was required to purchase the stocks as actually existing on July 1st. As the loan was issued, however, at £96 per cent., or its equivalent, the actual proceeds were only about £16.5 million, from which must be deducted, say, fr million for flotation expenses, so that it is doubtful if São Paulo received much more than £15,500,000. From this must be deducted the outstanding advances on coffee which she had now contracted to pay off, namely, the £5,000,000 credit received from Lazard Brothers in 1928 and the £2,000,000 credit received from Schröder's in November 1929. So far then the São Paulo Government appears to have received £8,500,000 of new money, but there is little doubt that the Government, on account of the Coffee Institute, was indebted to the Banco do Estado, and probably to the Banco do Brasil. The Banco do Estado, for example, is said to have lent the Government £3,000,000 very soon after the crash in October 1929, but there is no certainty as to whether this was a repayment of a previous advance by the Government to the Banco do Estado. The truth is that no outsider at any rate can ever hope to disentangle the complicated relationships between the São Paulo Treasury, the Banco do Estado and the Banco do Brasil, and therefore no precise calculation can be made as to the amount of *new* money now received by the São Paulo Government: at a guess it may have been \$\int_6,000,000-8,000,000.

Whatever the precise sum, it is at least certain that the loan produced some new money. and fortunately this basis is sufficient for an answer to the question whether borrowing on such a scale was really necessary or advisable. Obviously São Paulo needed to borrow £7,000,000 to pay off the temporary credits from Lazard Brothers and Schröder & Co. Beyond this, it was doubtless desirable that the relations between the São Paulo Treasury, the Banco do Estado, and the Banco do Brasil should be straightened out, but in the circumstances there seems a very weak case for borrowing foreign capital for the purpose, while the lender's wisdom seems highly questionable. though on these matters, as has been said. so little is known publicly that such criticism may be mistaken. The balance represents the new money obtained, and for this there seems no justification whatever. The whole of the 1929-30 crop, big as it was, had already been financed long before April 1930, and the peak of the total stocks in the regulating warehouses had been reached: with a small crop in prospect, there was no reason why the stocks should ever exceed this peak level, if the scheme of averaging out two successive crops was adopted as the new main principle and scope of coffee defence. Additional money for coffee financing would only be required if more stocks were to be accumulated, and the São Paulo Government had expressed its determination not to allow this. The only other use for more money, so far as coffee was concerned, was for purposes of market intervention, which in the long run and on the grand scale was really incompatible with the policy of no further accumulation of stocks, while as a means of stemming short-period relapses, the resources required would, and certainly should, have been small. The São Paulo Government was obviously not in need of more money, provided it honestly intended to pursue the new policy, and therefore it was most unwise to saddle itself with further obligations on account of coffee.*

^{*} It may be observed that in December 1929 the São Paulo Government had sought for and obtained authority to raise a loan up to an amount of £12,000,000, and fresh legislation had to be passed when a loan of £20,000,000 was secured. This might be fairly construed as implying that they would really have been satisfied with the former amount, or at least that this

The borrower's justification must therefore rest on factors outside the problem of coffee as such. Further supplies of money in the hands of the Banco do Estado would enable the other banks to reduce their obligations in respect of coffee financing, and therefore larger funds would be available for ordinary commercial purposes. In other words, credit in general would become easier, and this would help to restart the almost stationary wheels of commerce and industry. Moreover, the knowledge that the Government had ample funds to prevent the complete collapse of the defence scheme would reassure the banks, and possibly reverse their present policy of trying to build up the largest possible cash reserves.* It is hard to blame São Paulo for refusing, in her hour of darkness, to accept whatever assistance she could get, and a tolerable defence can perhaps be constructed on the lines that, though credit inflation was the cause of her difficulties, the pendulum had now swung too far the other way, and that another small dose was necessary to avoid an unnecessary prolongation of the existing conditions.

From this it follows that the lender must find his justification, not on the ground that more money was required for a satisfactory solution of the coffee problem, but on the ground that it was legitimate and wise to save the economic life of São Paulo from unnecessary pain and suffering, and at the same time to ensure the continued discharge of her existing liabilities to foreign lenders.† On these grounds the loaning of new money may have been justifiable—it is a complex issue which need not be judged here—but as regards the coffee problem, this new money was un-

necessary.

A third issue concerns that part of the scheme relating to the 3 million bags of "Government coffee." At first sight there seems no reason why this differentiation should have been made. If the bankers wanted the additional security represented by these 3 million bags redeemable at £2 Ios. instead of the £1 receivable for the remainder, the obvious course would have been to fix a slightly higher uniform rate of redemption for the whole. This part of the scheme, in fact, represents a bargain between the São Paulo Government and the bankers. The leaders of the Institute thought that if coffee prices could once be restored from what they considered the abnormally low level then existing, to a higher level, that higher level would be automatically maintained, even though the Santos entries could not, under the new scheme, be restricted below a minimum of 10 million bags a year. If the pressure of sales could be reduced for even a short period by the outright purchase of a portion of the current entries, it was thought that the spot market price level would be permanently raised. The object might have been secured by operations on the terminal market, but the bankers are said to have frowned on this, and indeed it appears to have been an unwritten condition of the loan that there should be no speculative intervention in the Santos market or elsewhere. The Paulistas therefore wanted to be allowed to use some of the proceeds of the loan for outright purchases in the spot market. The bankers

represented their maximum hopes, though equally it may have been that at this date they simply felt it would be unwise to incur a greater obligation.

* The ratio of cash to deposits in the four native São Paulo banks had been rapidly restored to a safe figure of well over 30 per cent. by the beginning of November 1929, and though 40 per cent. was in sight by May 1930, there was no sign of relaxation.

† That such arguments were strongly felt by Schröder & Co. is clearly shown by the following extracts from the June 1930 issue of their Quarterly Review, but whether they would admit that such arguments constitute the whole case for lending

admit that such arguments constitute the whole case for lending further new money is another question. The passage in the Review reads as follows:

"As the issue of this loan, in the present conditions of the money market, and of British industry, has been criticised in certain quarters, we may point out that Brazilian imports of British goods have in the last few years varied between £16,000,000 and £20,000,000 per annum, and that over £300,000,000 of British capital is invested in Brazil. In order to pay for her imports and remit the interest on foreign capital. to pay for her imports and remit the interest on foreign capital, Brazil depends on the export of her products, of which by far

Brazil depends on the export of her products, of which by far the most important is coffee, which represents about 70 per cent. of the whole.

"Moreover, it must be remembered, firstly, that a large proportion of the funds now being raised—practically the whole of the £8,000,000 placed in London—is destined to repay advances already made by British lenders against coffee; and secondly that it is a mettine of react importance both to British secondly, that it is a matter of great importance both to British exporters and to British investors that the coffee situation should be cleared up, in order that Brazil should be able to continue the most approximate the continued to the conti continue to make remittances to this country and to place orders for British goods, for British exports to Brazil enormously exceed our imports from that country. The seriousness of the crisis, and the direct effects which it had upon British

trade are perhaps not generally recognised, but as one instance alone of the repercussion of the difficulties arising from the immobilisation of coffee credits in São Paulo, it may be recorded that the recent failure of the old-established exporting firm of E. Ashworth & Co., Manchester, was directly attributable to the Brazilian crisis. Commercial difficulties entailing the loss of money by British exporters, and strained credit positions entailing the cessation of orders, seemed certain to hamper Anglo-Brazilian trade unless relief was obtained by an operation such as that which has now been carried through.
"The magnitude of the operation (an authorised amount

of £20,000,000) made it one which could only be handled by an international consortium. If London had stood aside (quite apart from the moral effect produced by the fact that London has in the past always taken the lead in Brazilian affairs) the amount would have had to be reduced, and the scheme, from being a comprehensive solution, would have become a partial alleviation which would still have left in existence the coffee

problem with its crippling effect upon the trade which Brazil carries on with Great Britain and other countries.

"Finally, we may remind our readers that the loan is secured as to principal and interest by the pledge of coffee and that an annual minimum of £800,000 being one-tenth of the London portion, is to be redeemed each year, beginning in April 1931. The whole of the money invested, therefore, is due to be repaid one of Great Britain's most valued customers will have been enabled to return to the path of prosperity and that the result will be a gradually increasing interchange of commodities." agreed, but would only allow the sum of fi ios. for the purchase of each bag, while the price of redemption was to be £2 10s. The price of a bag of Santos 4's was approximately 120\$ when the loan was contracted in March and April 1930, which at the current rate of exchange was equivalent to about £3. The São Paulo Government had therefore itself to find at least £1 10s. per bag, and if, after buying, the price fell appreciably, a loss on the sale would be incurred. By July 1st, however, when purchasing began, the price was down to about What happened was that the São Paulo Government bought a quantity of fine coffees of the 1930-31 crop up-country,* and substituted them for low-grade coffees which were purchased in Santos: the amount so bought is variously estimated at 700,000 to 1,000,000 bags. On these transactions some profit was probably made, but the value of the remainder which was purchased in the Santos market, and that of the substituted coffee, soon fell below the redeemable price of £2 10s., and the coffee therefore appears to have passed into the control of the bankers. Some Santos dealers have doubts as to whether the full three million bags were ever bought, and no one can say for certain how the São Paulo Government raised the balance of fi per bag, or what the position is to-day. All that can be said with certainty is that three million bags were arbitrarily deducted on this account from the official statistics of stocks,—a fact which should not be forgotten in considering the statistics of stocks since 1929—and that Theodor Wille & Co., who, as the agents of Schröder & Co., obtained a monopoly of the dealings, much to the disgust of the other Santos commissarios, continue to hold in Santos warehouses a very large quantity of coffee for the account of the bankers. The bankers' security for the loan at £1 10s. per bag is still, of course, ample, though whether it will be in the future remains to be seen. But this particular part of the general scheme must be judged as thoroughly unsound, for apart from a severe frost or other miracle the further decline of prices was inevitable. Presumably the Paulistas were very insistent, and the bankers gave in, though, in doing so, they safeguarded their own interests to the utmost possible extent.

The fourth issue concerns the new method of regulating the Santos entries. As has been said, the monthly entries were to total 833,334 bags, or one twenty-fourth of the estimated crops

of the current and subsequent year, whichever This meant, for example, that was higher. at the latest some time in May or June of 1930 the Institute had to estimate the 1930-31 crop, of which the picking would have just begun, and also the 1931-32 crop. Now an adequate staff of experts could estimate the former with reasonable accuracy, barring a phenomenal frost like that of 1918, or other great weather catastrophes: such an estimate would not be liable to an error of more than, say, 10 per cent. But no man, however expert or experienced, can possibly estimate the crop of the following year as early as May or June. The main flowering does not take place until August or September, and though the expert can then make a rough guess, much depends on the weather during the succeeding months, and it is not until he can examine the trees in March and April that he can reach even a tolerable approximation. By May or June the utmost that the expert can say with certainty is that the crop of the following year, given normal weather conditions, will probably be very large, large, average, or small: that much he can tell by the development of the new wood upon which the flowering will take place, but no more. An estimate in May or June of the combined total of the current and subsequent crops can only be sheer guesswork, and even if the guess is revised after the flowering in September, the possible error still remains very large until the following April. Given the utmost desire for accuracy, and an absolutely free hand to revise the estimates at short intervals, such a system of control might work sufficiently well to prevent any great carry-over of stocks at the end of the two years. But in the hands of a biased controller, there is no reason why he could not. with a perfect show of propriety, so arrange matters as to carry over a very large quantity: it is always easy to justify the making of erroneous estimates! Yet this system was the keystone of the whole solution of the coffee problem, for, if any further accumulation of stocks took place, not only would further finance be required, but the security for the present loan would be jeopardised. Everyone knew that São Paulo's normal capacity for production was already in excess of the probable demand, and would be still more so each year as the new plantings came into full bearing. If there were no further accumulation of stocks, the price would fall until equilibrium was reestablished by the stimulus to demand, and the abandonment of a sufficient acreage of old high cost plantations. Naturally the owners of these plantations would bring the utmost possible pressure to bear on the São Paulo

^{*} This incidentally afforded some cash relief to the planters, which was probably the object of the arrangement in the eyes of the São Paulo Government at least as much as the making of profits thereby.

Government to raise the price at whatever cost. and the majority of the industry would probably be equally insistent. Governments in São Paulo exist but to do the will of the coffee interests, and it must be remembered that at this date the Paulistas in general were still dreaming of the pre-1929 prosperity, and convinced that valorisation was the right policy, since sooner or later the luck would turn, and any accumulation of stocks would be disposed of at a handsome profit. Hence the São Paulo Government would inevitably tend to underestimate the crops, and thus to keep down the Santos entries to the lowest figure for which any sort of a case could be made: when they were proved wrong, the carry-over would require finance which the bankers would presumably be asked to supply, and it would be very difficult for them to refuse on account of their already heavy commitments. The scheme made it possible for São Paulo to play the game with loaded dice. Presumably, in agreeing to the arrangement, the bankers felt that whatever happened their security was sufficiently safe, and it certainly seemed so at the time. The only other explanation is that they thought the São Paulo Government was genuinely convinced of the folly of any further accumulation of coffee, and able to withstand all popular clamours: if this is the true explanation, it would appear that they were very ill-informed as to the current trend of Paulista opinion, and of political conditions generally. The strongest case which can be made out on their behalf would perhaps run along the lines that to protect existing foreign investments, it was essential to prevent the general economic collapse of Brazil which would follow any sudden release of the São Paulo coffee stocks, and that since São Paulo would rather have seen this happen than hand over the virtual control of her economic life to foreigners, they made the best practicable bargain. But this was a flaw in the scheme which went far to undermine its pretensions to be a comprehensive solution of the problem.

All in all, the São Paulo Government had bargained well. The Paulistas, as has been said, were jubilant, and little or no adverse criticism was heard in Brazil, except from the exporters, whose opinion in short was that São Paulo had "won hands down." The American and European private investor appears to have been extremely sceptical, for it is said that the London underwriters were left with about 85 per cent. of the European issues, and their New York brethren with about 70 per cent. Too much, however, should not be made of this, for the general public were not investing in anything of at all a speculative nature at this time, and while in general it is difficult to deny that the bankers were lenient, this does not alter the fact that the scheme on paper was essentially sound, and the security reasonably good, even when judged by the most extreme pessimist, at any rate at the time. In my view, the proposition can be severely criticised in three main respects: (a) that the amount of the loan was excessive, (b) that the scheme for the Government purchase of 3 million bags ought never to have been allowed, and was unsound because its object was to raise the price, whereas the quicker it declined to a level which would discourage production the better, and (c) that the determination of the Santos entries ought never to have been left in the hands of the Government of São Paulo. Apart from these three issues, the general scheme of the loan was sound, and constituted the best available solution to the problem from the point of view of all

parties.

The loan had hardly been issued before the world received what was interpreted as a confirmation of its worst fears as to the integrity of the São Paulo Government's intentions and promises. The Institute, in its reckoning of the stocks existing on May 1st, 1930, discovered that another 2-3 million bags had suddenly appeared from nowhere, and more coffee was arriving at the reguladores than had been anticipated, so that it was soon realised that instead of 16.5 million bags as estimated in the loan prospectus,* the actual stocks on July 1st would be about 21 million bags. In addition, there seem to have been many people, even amongst those who should have known better, who thought that the São Paulo stocks represented the total stocks in Brazil, whereas in fact there was a carry-over in Rio of 1.6 million bags, which, with small quantities in other ports, brought the total for Brazil up to 23.7 million bags. As a consequence, fears were reawakened lest after all the São Paulo Government and the bankers would not be able to control the situation, and the New York price, which had been more or less stationary at between 14 and 14½ cents from January-April, declined to 13.8 cents average for May, and to 13.2 cents average for June. The new defence plan was thus inaugurated on July 1st under

^{*} A point which I have not been able to clear up is whether * A point which I have not been able to clear up is whether the estimate of 16·5 million bags was intended to include the stocks of Minas coffee in São Paulo warehouses, or whether it referred only to coffee grown in São Paulo. If the latter, the Minas coffee might account for I million bags. For the rest, whether there was deliberate concealment, or whether it was a genuine mistake, cannot be determined, but though the latter may seem impossible to the European, it would not be out of keeping with the general standard of Brazilian Governout of keeping with the general standard of Brazilian Government administration.

even less favourable circumstances than had

been anticipated.

The events of the rest of the year need be described only in the most summary manner for our purpose, though to those immediately concerned they were of all-absorbing interest, if not the most acute excitement. With August came the first serious rumblings of the political storm, and a serious break in exchange: some recovery was made during September, but the average for that month was still just under 5 pence. September also saw the now annual Inter-State Coffee Convention, but no significant changes were made, except a revision of the percentages for the different States concerned in the quotas allowed for each port: in general São Paulo and Rio had to make concessions to the other States, especially to Minas Geraes. In October came the revolution. This caused a sharp rise in the New York price, as it was feared that exports might be interrupted, as was indeed the case but on a small scale. During the last week of October the Santos Bolsa was closed, and foreign exchange operations passed into the exclusive control of the Banco do Brasil. During November normal conditions were gradually restored in both the political and the commercial world, and in December the new Provisional Federal Government was able to turn its attention seriously to the twin paramount problems of coffee and exchange. The New York price now averaged 10.5 cents, and was falling daily, while exchange, though still partially controlled, stood at 4.73 pence, and was also falling daily.

The immediate factors influencing these two prices (of coffee and Brazilian currency) are, of course, different, though each powerfully reacts on the other. The cause of the immediate fall of the price of coffee from 13 cents in June and July to 10 cents and under at the end of the year, was not the revolution or any political troubles, but the growing certainty that the crop of 1931-32 would again be very large. It was primarily the flowering of this crop which caused the price to break to II cents in August 1930, and not the rumblings of the revolution, which, as has been noted, subsequently caused a sharp rise. Similarly, it was not lack of confidence in the Provisional Government, or in Brazil's future, which caused the rapid decline in November and December, but the realisation of Brazil's excessive capacity for the production of coffee, and therefore of the difficulties of any scheme of defence, let alone the gradual liquidation of the existing stocks and the maintenance of the Realisation Loan plan. The worst possible anticipations of earlier days were revived: the second bumper crop, which had so

unexpectedly followed with one year's interval. was now apparently about to be followed after another one year's interval by a third. Trade estimates of the coming 1931-32 crop were already running in the neighbourhood of 16 million bags, or 2 million bags more than the Institute's estimate, upon which the current Santos entries were based, while it was now tolerably certain that the Institute's estimate of the 1930-31 crop was at least I million bags too low. By July 1st, 1931 there would therefore be 3 million bags in stock which ought not to be there according to the Realisation Loan plan: the carry-over on that date (1931) would not be much less than 18-19 million bags. But the future outlook was even more black. Retaining the Institute's estimate for the 1931-32 crop at 14 million bags, and assuming an estimate as small as o million bags for the crop of 1932-33, the annual entries into Santos would be II.5 million bags plus 1,350,000 bags of Planters' coffee and 300,000 bags of Government coffee in accordance with the Realisation Loan contract, or a total of over 13 million bags, while if the trade estimates of 16 million bags for the 1931-32 crop be preferred to the Institute's official estimate, the total would be over 14 million bags.* Santos exports for actual consumption, as distinct from any absorption for stocks to be held abroad, could not be expected to exceed 10.5 million bags, and if the coffee were to be cleared, the foreigner would have to be persuaded to hold stocks. At what price would this happen in the face of a capacity for future production which appeared to be at least an average of 13 million bags, or 2½-3 million in excess of the world's requirements?

As regards exchange, the maintenance of a stabilised rate at a fraction under sixpence from the end of 1926 until the coffee crash in October, 1929, had been made possible by two factors, (a) the high price of coffee and (b) extensive foreign borrowing. Brazil's international account may be estimated as follows:—

(£ million.)

	1926.	1927.	1928.	1929.
Imports	79-9	79·6	90·7	86·6
	31-0	33·0	35·0	37·0
Minus Exports	110·9	112·6	125·7	123·6
	94·3	88·7	97·4	94·8
Balance Deficit	16·6	23·9	28·3	28·8
Minus Foreign Loans	29·3	32·9	27·5	6·2
Final Balance	+12.7	+9.0	-0.8	-22-6

^{*} The 1931-32 crop may prove, in fact, to be somewhere between 14 and 16 million bags.

As has been noted above, exchange was weak for several months before the crash in the price of coffee in October 1929, and this weakness reflected not only fears as to the eventual outcome of the defence policy, but also the increased unwillingness of Europe and the U.S.A. to make further investments in the country. combined with the growing stringency in the financial world generally. The fall in the price of coffee coincided with the Wall Street crash. and the former resulted in a lower value of exports, while the latter made foreign borrowing more difficult than ever, so that exchange fell to 5½ pence, and probably would have fallen further, if Brazil had not begun to export her gold reserves. In March, April and May 1930. the successful conclusion of the Realisation Loan brought about a reaction to 5.8 pence, but with the continued decline in the price of coffee, and the dwindling of the gold reserves, the decline in exchange was resumed, and at a much more rapid rate. Then came the revolution, and though this was obviously an additional difficulty in that it meant an interruption to commerce and the probability of an issue of paper money,* it should be realised that the revolution was a relatively unimportant factor in a situation which was dominated by the price of coffee and the ability to borrow from abroad. No one feared that the new Government would have less respect for its foreign obligations than the old, or that the old Government was so good that it could not be replaced by a better. But equally the new Government would at least for a time find foreign borrowing as difficult as the old, while no human action seemed capable of solving the coffee problem with the requisite speed.

Dr. Whittaker, the new Federal Minister of Finance, was faced with an outlook for 1931 which may be briefly summarised as follows, assuming that somehow the budget could be made to balance. For the payment of interest on Federal, State and municipal debts, together with the remittance of interest and dividends by foreign companies, banks, etc. (this last being figured at a very small amount owing to the general economic depression), Brazil would have to find approximately £40,000,000. If necessary imports be put at one-half the recent total importation, the bill for imports would also be roughly £40,000,000. Thus, at a minimum, £80,000,000 would be required for payments abroad. Since no foreign borrowing would be possible, and since the whole stock of gold had now been exported, the only appreciable credit item was exports of commodities. Exports

other than coffee had been averaging rather over £20,000,000, and though favoured by the fall of exchange, this stimulus must be reckoned as likely to be neutralised by the effects of the world fall in the price of raw materials and the reduced purchasing power consequent on the world slump. At the price level existing at the end of 1930, the exports of coffee could not be estimated to bring in more than about £27,000,000. In round figures, therefore, there was a prospective deficit of £30,000,000. But with the existing huge stocks, and, fundamentally far more serious, an excess capacity for production of 2½-3 million bags in São Paulo alone, what chance was there that even the present price of coffee would in fact be maintained? And if coffee prices declined still more, the prospective deficit on the international account would become larger still, so that exchange would fall further, with the result that the bill for necessary imports would be increased as also the burden of the foreign debt, while lower coffee prices would make the already difficult problem of balancing the Federal and State budgets still more difficult. Thus coffee and exchange constituted a vicious circle of an

apparently insoluble character.

As regards the coffee problem, the Federal Government dared not face a further large fall in the price of coffee, if only on account of the effect on exchange, and the fall would undoubtedly be very large, because foreign merchants would have to be tempted to carry the surplus, since no speedy and adequate increase in actual physical consumption could be anticipated: moreover, as has been said, the outlook for such speculative carrying of stocks was most discouraging, for while in two or three years very low prices would cause the abandonment of capacity on an appreciable scale, this would not happen immediately. The only possible remedy was to reduce the size of the coming crop; in other words, a policy of actual restriction of output. But this is a peculiarly difficult and expensive problem in the case of coffee, for it is impossible in practice simply to order the planter to leave x per cent. of his crop unpicked. Unless each planter was supplied with sentries to keep watch throughout the picking season over the section of his trees which was to remain unpicked, it is certain that those trees would be picked, if not by his own colonists, then by someone else. The crop must therefore be picked, and the only possible form of crop restriction is deliberate destruction of a part of the harvest. But to order each planter to destroy so much of his crop on the fazenda is also out of the question. An army of inspectors would be required, and such men would never

st The amount of paper money actually issued was, in fact, relatively insignificant.

have resisted the temptation to accept bribes: most of the coffee would have escaped destruction, and those planters whose coffee was destroyed would have been almost literally up in arms. The only feasible scheme was to destroy the coffee at, say, a dozen centres in the interior at the most, where the business could be reasonably well supervised. Heavy transport costs, both from the fazenda to the railhead, and then by rail to the centre would thus be entailed, and this would be in addition to the costs of harvesting. Crop restriction with coffee is, therefore, a difficult and expensive performance.

Nevertheless the Federal Government came to the conclusion that it was the only possible remedy. But before this decision was taken, two other decisions, one of a negative and the other of a positive character, must first be recorded. The former concerned certain proposals submitted by Mr. Charles Murray at the invitation of Dr. Whittaker, the new Federal Minister of Finance, for the solution of the twin problems of coffee and exchange at a single blow. Mr. Murray's remedy was as ingenious as it was bold, and yet so simple as to excite wonder that no one had thought of it before. In his view, the exchange problem could only be solved by an increased value of coffee exports, since no considerable increase in other exports could be anticipated in the short run. He pointed out that at the price ruling up to October 1929, coffee exports amounted to £67,000,000 a year, whereas at the current price level (in December 1930) the same volume of exports were only worth £27,000,000. If the value of coffee exports were to be restored to the previous level, Brazil's international account would be balanced, for exports of all (i.e. f.67,000,000 from coffee and £20,000,000 from other commodities) would amount to over the £80,000,000 which had to be found for the remittance of interest obligations and necessary imports.* With the disappearance of the prospective deficit of £30,000,000, exchange would certainly recover, and thus the internal burden of Brazil's foreign debts would be lightened. But supposing that by some means the price of coffee could be hoisted back to the old level, production would be extremely profitable and new planting would be stimulated, thus increasing the already excessive capacity: hence in the long run the position would be made worse, not better. Yet world consumption of coffee had continued to increase from 1922-29 despite the high price level, and had increased no faster since the fall in prices: there was, therefore, no See previous page.

reason to suppose that the increase would not continue if that high price level were restored, and equally that it would not be greater if the present low level were maintained. So far as consumption was concerned, the price makes little difference, and on this side of the problem Brazil had only to ensure that she would obtain at least a fair share of the normal increase, and not allow this to be monopolised by her competitors as in the past

petitors, as in the past. Such in brief was Mr. Murray's analysis of the twin problems. Somehow the gold price of coffee had to be raised to its previous level, while the price received by the farmer must not be so high as to encourage new planting; indeed it must be so low as to effect a reduction in the existing capacity. Further, some means must be found to liquidate more rapidly the existing stocks of coffee, since their storage is not only expensive, but their mere existence presses down the price. Mr. Murray's solution was to impose an export tax of approximately 100 per cent., for a period of say eighteen months to two years, the proceeds to be used to destroy the existing stocks in the reguladores. In order to give an inducement to buyers, and to prevent them from holding back their purchases in the the hopes of breaking the scheme, the tax was to be imposed gradually in three bi-monthly instalments. At the end of the first six months, the gold price would have returned to the 1929 level of f_{5} per bag, and the exchange problem would therefore be solved. On the other hand, the planter would still be receiving only the existing price, at which Mr. Murray thought the highest cost plantations would be abandoned, while certainly there would be no new planting. Meantime, with the proceeds of the tax the Federal Government would be able to buy from the planters one bag for every bag exported, and at the end of eighteen months or so the carry-over would be less than 10 million bags.* With the liquidation of all surplus stocks and some reduction in capacity, the tax could then be removed, and the price of coffee safely left to find its own level; as regards exchange, Brazil would have secured a breathing space in which to rebuild her political and economic life, and in particular to develop the export of other commodities than coffee, while by that time world conditions should have greatly improved, thus making the whole situation much easier for Brazil.

At first sight, this solution of the problem will probably evoke a pitying smile from those readers who fancy their knowledge of economic theory, while others will doubtless feel that

^{*} The 1931-32 crop was estimated by Mr. Murray at 15 million bags.

anything so simple must somewhere have a catch in it. But judgment should not be passed too hastily, and it is incumbent upon anyone who condemns it, to supply a better alternative solution of the intermingling problems with which the new Federal Government was faced. It has already been argued above that the destruction of the surplus of the coming 1931-32 crop was the only sound policy, and of course the desired results would be achieved just as well by destroying an equivalent quantity of coffee already in store. To this extent, therefore, Mr. Murray's scheme is sound. Moreover, it is difficult to argue that exports would be much greater at the price level existing in December 1930 than they would be at double that price level, for the former was not sufficiently low to induce speculative purchases, and the final consumer had got used to the latter: indeed, as Mr. Murray pointed out, retail prices of coffee in the United States had not so far been changed, and it would apparently be a long time before the middlemen and roasters passed on to the public the full benefit of the fall in the price of green coffee. The demand for actual physical consumption is almost certainly very inelastic, at any rate in the short period, and that in this case means several years. From Brazil's point of view there seems nothing unsound in charging high prices for a short period, provided, first, that the consumer can be made to pay, secondly, that new planting will not be stimulated materially in other countries, and thirdly, that new planting will not be stimulated in Brazil itself. Taking these points in the reverse order, it can be taken for granted that Mr. Murray was right in supposing that at the price ruling in December 1930 there would be no new planting in Brazil, though he was probably rather optimistic in supposing that this price would result in the abandonment of any appreciable number of trees within two years. As regards the stimulus to new planting in other countries, Mr. Murray argued that, since coffee trees require from five to six years to reach production, a Brazilian plan which was to last less than two years was not likely to give any encouragement to new planting, and added reasons, probably well-founded in the main, for supposing that a doubling of the price of Brazilian coffee would not result in a doubling of the price of mild coffee, or anything like it. Certainly a strong case can be made out in support of his conclusion, while during the lifetime of the scheme no new supplies could, of course, be forthcoming, other than from trees already planted.* There remains then as the

crucial issue the willingness of the consumer to pay such a purely artificial price. The world's consumption is approximately 24 million bags, of which the mild countries can only supply about 9 million: the other 15 million bags must come from Brazil. For the last eight years the world had been prepared to pay £5 per bag for Brazilian coffee, and its total consumption had increased. The price was artificial then, just as it would be artificial under Mr. Murray's plan, though the character of the artificiality would be more public. It is possible that, for example, in the U.S.A. an attempt would have been made to organise a consumers' strike, but it must be remembered that Mr. Hoover had changed his attitude, and no attempt had been made to stop New York's participation in the Realisation Loan. The roasters had certainly had a difficult time up to 1929, but very low green coffee prices usually stir up what is, in their eyes, a most obnoxious form of competition by small men doing a local trade unburdened with the costs of heavy advertisement, while, of course, all middlemen prefer the large commissions which accompany high prices. Finally, the New York financial world would not support any agitation against a scheme which, if successful, would ensure Brazil's ability to meet the service of her loans. Some of these arguments apply also to Europe, but in any case the practical difficulties of organising an international consumers' strike may be considered prohibitive. The only serious risk was that the world would be able to refrain from buying just a little longer than Brazil could afford to refrain from selling. visible stocks outside Brazil were only about one month's supply, and there is every reason to suppose that invisible stocks were also very small. A deliberately organised international effort to break the scheme might possibly have been successful, but it was most unlikely that any such effort would be made, for any speculator who fancied Brazil's chances of success would make enormous profits by buying during the period before the tax was raised to the full

The pros and cons of Mr. Murray's scheme can be argued at length, but perhaps enough has been said to show its claims to most serious consideration. It would perhaps seem unlikely that the consumer would continue to pay the full tax for as long as two years, but it seems more than likely that he would have paid a

^{*} The scheme would, however, have given great prosperity to Colombia, and it may be argued that this would have enabled

the Colombian Government to build railways, and so remove what is at present one of the great obstacles to new planting: in other words, that there would have been an indirect and long-run stimulus to new planting. But this is a highly problematical and conditional argument.

large part of it, while there is little reason to suppose that the quantity demanded would have appreciably declined. Even if the consumer had not paid a large part of the tax, the decline in the milreis price would not have been by any means undesirable, for reasons which will be developed later. At the worst Mr. Murray's scheme had a sporting chance of success, and could do no great harm if it were removed as soon as failure was apparent. The real criticism against the scheme is that, even if it had succeeded in its primary objectives, it would probably not have reached its main objective. Its claims as a short-period solution are much stronger than its claims to provide the means and opportunity for constructing a long-period solution. The crucial question is whether Mr. Murray was right in thinking that in two years' time exchange would be able to look after itself. Exports of commodities other than coffee can certainly be developed by Brazil, but two years is a short time, and a relatively high and rising exchange would not provide such stimulus as would a low and falling exchange. Perhaps Mr. Murray was really banking in his own mind on a restoration of world financial conditions, such as would enable Brazil to resume the foreign borrowing upon which every developing country really depends to balance its international account. As claiming to provide a permanent solution, Mr. Murray's scheme was a somewhat perilous gamble.

Whether Dr. Whittaker was seeking for such a permanent solution, and thought the same, or whether he felt that the chances of success in the short period were remote, or whether he felt that the situation was not so desperate as to require such risky measures, or whether he was relying on the co-operation of foreign bankers and was unwilling to do anything which might antagonise them, or what his reasons were for turning down the scheme, are questions which cannot yet be answered. All that can be said is that the scheme was not adopted. The ideas contained therein continued, however, to germinate in the minds of Brazilians, as will be

seen very shortly.

The other decision was to purchase all stocks of coffee existing in São Paulo on July 1st, 1931 for the account of the Federal Government, at a fixed scale of prices on the basis of 60\$000 for Santos 4's. On purely commercial grounds this seems the decision of a madman. Roughly the position was as follows: the carry-over on July 1st, 1931 would consist of rather under two-thirds of the 1929–30 crop and the whole of the 1930–31 crop. The former had been financed at 80–90\$000 per bag, but the planters had sold a good deal of it outright to the com-

missarios before the crash, and they had managed to sell or liquidate to the banks a good deal more during 1930. The 1930-31 crop had been financed at about 40\$000 per bag, and most of it was still owned by the planters. total stocks to be purchased would be about 181 million bags, of which roughly 13 million formed the security for the Realisation Loan at about 50\$000 per bag. Supposing the grading to result in an average price of 60\$000,* the Federal Government would have to make up the difference of 10 \$000 on the 13 million bags of the Realisation Loan coffee, and would have to pay the full 60 \$000 for the remaining 5 millions. In all, therefore, the Federal Government would have to find something like 430,000 contos, which at the current exchange rate of, say, 50\$000 to the fi was equivalent to £8,500,000. Seeing that the Federal Treasury was empty, and that the budget could only be balanced with extreme difficulty in any case, this gratuitous addition to its obligations seems foolish in the extreme, for the Federal Government could hardly hope with the existing outlook to make much money on it even in the long run.

It is all the more extraordinary, therefore, that popular opinion should consider Dr. Whittaker to be the author of this scheme, and he has certainly been its main protagonist in the Federal Government. From the point of view of the planters and commissarios, the scheme was a godsend. Though some would stand to lose on their holdings of the 1929-30 crop if the present Santos price were maintained, they might well lose more if that condition were not fulfilled, while on their 1930-31 crop holdings they would definitely receive a cash balance of about 10\$000 per bag, whereas if they had continued to own the coffee, a further fall in the Santos price would involve them in a loss. When the São Paulo Government capped the Federal scheme by announcing its intention to give State bonds to the amount of 20\$000 per bag purchased by the Federal Government, which bonds proved to be saleable at a cash price of about 10 \$000, the scheme became most attractive: it would mean a most unexpected and welcome addition to their cash resources, and by freeing them of possible future liabilities would enable them to determine just where they stood and would stand in the near future. Admittedly the cash received would mostly have

^{*} Such large quantities would not normally grade as high as 4, but the quality of both these crops is probably above average, while there seems little doubt that the grading is being carried out in a very liberal spirit, presumably with a view to avoiding complaints on the part of the owners. The grading of such huge amounts is a tremendous task from the purely mechanical point of view, and the application of very strict standards would undoubtedly have involved almost endless trouble in the way of complaints and claims.

to go to the banks or other persons for arrears of interest on advances and mortgages, but this does not alter the fact that the planter's position

would be very much eased.

There is indeed little doubt that the objects of this scheme were purely political. The new Federal Government wanted to win the support of São Paulo: it may even be that they felt that their hold on São Paulo was so weak that something must be done if the success of the revolution were not to be endangered. Moreover, Dr. Whittaker had doubtless realised from the start that the exchange position was such as to necessitate Federal control of the coffee problem, and that since the control required would not be pleasing to the planters, it would be advisable to placate them in advance by a gesture of good-will: if later the planters kicked, the Federal Government would at least have a useful tu quoque. Even if on financial grounds the scheme ought to have been condemned, the Federal Government certainly had some grounds for feeling that politically it was so necessary as to be worth while, whatever embarrassments it might lead to in the future. On the other hand, the scheme certainly has a touch of that grandiose character which is so often found in the first measures of new Governments, especially revolutionary Governments, and it is at least possible that in the flush of victory the Federal Government, after counting its advantages, did not stop to count its ultimate costs. Politically there may have been necessity and justification—certainly no better way to the heart of the Paulista could have been devised—but commercially there was neither, while a mere change of ownership was, of course, no remedy for the fundamental difficulties of the coffee industry's problem, except in so far as the Federal Government was thereby enabled to force upon São Paulo more drastic measures than would otherwise have been possible in practice.*

At first it seemed that the Federal Government could only find the requisite finance by an issue of paper money. But the money was found, with the ingenuity which is so typical of Brazilians, in three ways. The first was by the opening of a credit at the Banco do Brasil for 156,000 contos, presumably against the ultimate profits of the business. The second was by means of the exchange of 1,275,000 bags of coffee for 25 million bushels of wheat, which was arranged during last August with the United States Grain Stabilising Corporation. The coffee was to be delivered only gradually over two years or more, but the wheat during the next few months, and the Federal Government was therefore able to arrange forward sales to Brazilian millers which in the aggregate are said to have brought in 189,000 contos. Thirdly, the Federal Government obtained a loan of £1,350,000 (in very round figures, say 100,000 contos) from Hard & Rand Inc. N.Y., a large American firm of exporters, the loan being redeemable against coffee on consignment amounting to about 1,350,000 bags. The Federal Government has thus raised the finance required for the whole operation, and the rate of buying, which during July and August 1931 was lagging far behind the rate of grading, was speeded up to such an extent that early in November Dr. Whittaker could announce the purchase of no less than 6 million bags. But though the operation is thus being carried out without recourse to the currency printing press, this in no way alters the fact that on economic grounds it was as foolish as it was unnecessary.

A return may now be made to the issue of crop restriction. Having as they hoped disarmed criticism by their decision to purchase the stocks, the Federal Government announced that as from February 11th, 1931 a tax of 20 per cent. in kind would be levied on the 1931 and the 1932 crops: in other words, the planters were to surrender to the Government one-fifth of their crops. The decree did not state what the Government would do with this coffee, but it was understood that it would be stored separately until the market really required it, or eventually destroyed. The same decree ordained the purchase of the stocks by the Federal Government, and also imposed a tax of 1\$000 per annum on all new plantings for five years: such a tax was, of course, prohibitive. As regards control of entries, the only restriction was to be the limitation per month to onetwenty-fourth part of the current and subsequent crops: the entries would therefore consist of new crop coffees on this basis plus the stocks to be liquidated under the Realisation Loan

^{*} The São Paulo Government's part in the scheme must be viewed rather differently from that of the Federal Government. The planters would sell the bonds for cash, and hand the cash to their commissarios, who would use it to reduce their indebtedness to the banks. Since the Banco do Estado had been so great a lender, it would secure a large proportion, and on the assumption that the Banco can for practical purposes be regarded as a department of the State Treasury, this would amount to a gain of cash by the São Paulo Government at the price of creating much larger obligations in the future. The São Paulo Government would, in fact, be handing out long-dated paper to the planter with its left hand, and with its right hand receiving back through the Banco do Estado a large part of the discounted cash value. From the point of view of the São Paulo Government its part in the scheme had the merits of a very vicious and expensive form of concealed borrowing, but so far as the Federal Government was concerned, what was paid out was gone completely and for ever, unless we assume that the Banco do Estado was indebted to the Federal Government, and that this indebtedness was somehow to be reduced by the gains which the scheme as a whole might be expected to bring to the former: for such an assumption there is no foundation.

scheme. But as the news of the tax in kind spread into the interior, such an outcry was raised by the planters that, despite the utmost persuasions of Dr. Whittaker and the São Paulo Government, it was found necessary to remove the tax at the end of the month. The idea of deliberately harvesting a fifth of their crop, and then carting it to the station and paying freight for dispatch to an incinerating centre, was simply more than the planters could stand. Moreover, the Government rapidly realised the practical difficulties of administration, and the inequities, as regards cartage and freight rates, which would result unless a very complicated scheme of allowances was to be established. As with a good many other measures at the time, the new political leaders discovered that it was one thing to draft a decree overnight embodying a "bright idea," and quite another thing to put

it into working practice. But every day increased the seriousness of the situation. Towards the end of February exchange fell below 4d., and the New York coffee price below 9 cents. The São Paulo Government, contrary to their understanding with the bankers over the Realisation Loan, is stated to have resumed operations on the New York market * in an effort to check the fall of the gold price. Meantime the Federal Government, through the Minister of Agriculture, had also been busy on plans for an International Coffee Congress to be held at São Paulo on March 31st. It cannot be said that Brazilians ever pinned much faith to this project, nor that it formed a serious part of the Federal Government's policy. It was rather the work of the Minister of Agriculture himself, who in his younger days had been one of Brazil's representatives and President of the International Coffee Congress held in New York in 1902. Having apparently forgotten the virtual failure of that Congress, Dr. Assis Brasil now hoped to float an international scheme of export quotas or some other form of international restriction scheme, such, for example, as was being negotiated at the time by the sugar-producing countries with every prospect of agreement. But he was almost alone in such hopes, and though there was a good deal of support for the conference in São Paulo, the chief object was differently conceived, as the following extracts from a statement issued by the Brazilian Rural Association show:—"To require the Colombians not to plant is impossible."... But "On the day when the Colombians, after a trip along the North-East and the new coffee zones of the Paulista plateau, learn the extraordinary reserves and possibilities, it is certain that they will decrease their plantings, and look with more apprehension towards new initiatives." "If we invite our competitors to see our plantings and what we can produce, they will have to recognise that our advantages in a struggle for the conquest of markets are

overwhelming." *

But the other nations were shy, and fearful of being lured into some commitment or other, and the Congress did not actually assemble until May. Meantime, on April 20th, the coffeeproducing States met to try and thrash out some solution of their problem: the Federal Government had propounded its remedy, the 20 per cent. tax in kind, and when this had been refused, it had virtually demanded alternative proposals from the States themselves. The adoption of Mr. Murray's scheme was no longer feasible, for the gold price had by now fallen so heavily that the tax would have had to be about 160 per cent. to achieve the required objectives within the two years. The utmost which could now be done was to provide for the destruction of surplus new crop supplies, and possibly make some small inroad on the accumulation of stocks over and above their disposal under the Realisation Loan scheme. As no other ideas were forthcoming, the convention rapidly decided to borrow Mr. Murray's central idea of an export tax, the proceeds of which should be used to buy up and destroy coffee. But there was considerable division of opinion as to what amount of tax was desirable and feasible. The São Paulo delegates appear to have wanted a tax of thirty shillings, but the other States were apprehensive, and the Federal Government appears to have thrown its weight on their side. As eventually ratified by the Federal Government on April 28th, an export tax of ios. per bag was to be imposed immediately by all the producing States, the proceeds to be used for the purchase and destruction of coffee. Such a tax on the basis of a total export of 15 million bags from Brazil would yield £7,500,000, which at the current exchange rate and milreis price would enable the Government to buy about 4½ million bags of Santos 4's, though, since the Government would buy the poorer qualities, the amount

^{*} There was also definite intervention on the Santos Bolsa. The conditions ruling in that market towards the end of March were thus described by a well-informed and disinterested party: "In the Santos Bolsa a firm acting for the State Government has been opening the business session with a bid of fully 18000 per 10 kilos over the price ruling in outside sales between commissarios and exporters. Several firms have endeavoured to call the bluff of the State representative by shouting 'sold'—only to their later sorrow. On delivery of these market sales, the State Government stands firm in refusing to take delivery on grounds of non-conformity to specifications, or some other grounds. Sessions of the Bolsa have consequently again become a joke, and very few firms even bother to attend." For the significance of the word "again," see p. 30 above.

^{*} Translation by the Medeiros Bulletin.

might actually be as much as 6 million bags. With a rise in exchange the proceeds would, of course, be less, and conversely, with a further fall in exchange, more. The tax was to be imposed for four years, by which time it was hoped that the existing surplus stocks, and any surplus production of future crops, would have been eliminated, while consumption would have increased sufficiently to require the present

volume of production.

Full consideration of the scheme will be deferred until the next section, since at the moment it represents Brazil's main remedy for the situation. This section will be closed by brief reference to certain other minor remedies which have been adopted. As well as the tax on exports, the Inter-State Convention considered the tax on new planting, and this was subsequently modified by a clause permitting States with less than 50 million trees to plant up to that figure, free of tax. The new tax had met with strenuous opposition from the State of Parana, with its large areas of rich coffee land awaiting development. So far as São Paulo and the other States were concerned, there was no particular objection to the prohibition: new planting had more or less stopped after the 1929-30 planting season, and would not be worth while at present prices even if the necessary capital had been obtainable. But the Parana Government felt bound to fight for the future prosperity of the State, and its opposition was only overcome by the granting of permission to plant up to 50 million trees. At the present time estimates of the number of coffee trees in Parana range from 28-35 million There is no reason to suppose that advantage will be taken of the concession for the next two or three years, and even if the planting of another 20 million trees does take place, their output would only average about 500,000 bags. The loophole thus allowed need not therefore be considered seriously.

The only other important decision taken by the Inter-States Convention was to promote the establishment of a National Council for the coffee industry, consisting of one representative of the Federal Government and one of each of the producing States. This body was to supervise the collection and application of the export tax, and to perform any other executive duties which might be delegated to it, while it was to keep a watchful eye on the whole situation. But mention must also be made of certain other minor measures taken by the Federal Government. New regulations had been passed to encourage the production of washed coffees, which as from May 1st were to be allowed direct entry to Santos up to a monthly maximum of

50,000 bags. Actually this limitation is purely nominal, for São Paulo has not the plant for producing such a quantity. But the scheme provides a big stimulus, for since washed coffees cannot be stored long in Brazil without deterioration, rapid shipment is necessary, and hitherto this had involved substitution for ordinary coffees according to the current regulations as to substitution: * henceforth, no substitution of any kind was to be required, and thus all interest charges could be avoided. This measure formed part of a general effort to improve the quality of Brazilian coffee, the other chief measure being the prohibition of shipment of all coffees below Type 8. Such prohibition had been ordained since 1929, but it was now to be thoroughly enforced, for even the Medeiros Bulletin reports that hitherto it had been a sheer failure. "Nobody ignores that in addition to one or two attempts at bribing the Government fiscals, which cases were ventilated in the local Press, shippers from the interior have adopted the resource of mixing the lower grades with higher type coffees, thereby lowering the average quality of our crop, and increasing the volume to be financed." Unfortunately the visitor to Brazil is likely to hear sufficient to convince him that corruption is still very widespread, and evasion of the law still freely practised.

Before attempting to review the present situation in general, it is now only necessary to summarise the results of the International Coffee Congress held in São Paulo during the latter part of May and the first half of June. From the start, the Congress was really little better than a farce. On assembly it was discovered that Colombia, the most important country from Brazil's point of view, had sent no representative. Urgent representations were made to the Colombian Government, and eventually a representative was despatched by sea to New York, and thence to Brazil by air, this being the quickest route. The prospects of the Congress were also further damped down by the opening speech of the Federal Minister of Labour, who was representing the Federal President. He stated that the Federal Government was strongly opposed to any idea of valorisation, and that the salvation of Brazil lay in securing better quality, and in taking steps to avoid any further accumulation of stocks. declaration, so to speak, spiked the guns of both Dr. Assis Brasil, the Federal Minister of Agriculture, and the São Paulo delegates, at the start. Days of desultory talk followed, until the delegates from other countries succeeded in forcing the head of the Brazilian delegation to admit that there was grave dissension within his ranks. Dr. Assis Brasil's scheme for an export cartel was not favoured by the Paulistas. some of whom apparently wanted the universal adoption by other countries of the 10s, export tax scheme, while others apparently thought the real remedy lay in the formation of producers' co-operative societies, and direct sale to roasters. Eventually the Brazilian delegation seem to have rejected Dr. Assis Brasil's scheme, and to have failed to agree upon any definite proposals. A completely colourless report as to the causes of the crisis was then drawn up, which added nothing to what everyone knew. At this point the Colombian delegate arrived, and for another four days the Congress discussed the only concrete suggestion which had emerged, namely, the desirability of an International Coffee Bureau which should collect and improve statistics, conduct investigations into methods of increasing consumption and improving methods of marketing and distribution, and endeavour to persuade consuming countries to lower their tariffs on coffee. The Bureau was also to consider methods of financing coffee crops and stocks, and the advisability of setting up an International Bank for this purpose. The necessary finance for the Bureau was to be

provided by the various countries in proportion to their exports over the last three years at a rate not exceeding 5 cents per bag. Eventually it was agreed that another Congress should be summoned to meet at Lausanne not later than July 1932, for the purposes of further discussing these specific proposals and putting the scheme into operation. Thus the Congress ended on June 17th, amidst pleasurable anticipations on the part of the delegates of a free trip to Europe in 1932! The establishment of such a Bureau is undoubtedly very desirable, if only for the improvement of coffee statistics, while a concerted effort to reduce tariffs on coffee in consuming countries would also be a sound step in a right direction, though it must be remembered that these are mainly revenue duties. But the Congress did nothing whatever to ease Brazil's present difficulties. A purely negative result was indeed to be expected, for the mild producers, and especially Colombia, know perfectly well how strong their position really is, and that prosperity will return to them when it returns to Brazil. Nevertheless, Brazil should not have been forced into a more or less public exhibition of her delusions and dissensions.

IV.—THE PRESENT POSITION AND PROSPECTS

Note.—This section was written during last November. Since then, some important new developments have occurred, but no alteration or addition has been made in the text as originally written, for the general analysis of the position here presented remains unaffected in essentials. A brief summary of more recent events is added in a note at the end.

Consideration of the ten-shillings export tax scheme has been deliberately postponed because it constitutes the buttress which supports Brazil's maintenance of control, and as such must occupy a central position in any general appraisal of the present position and prospects. As was noted in the previous section, the proceeds of the tax were to be used for the purchase * and destruction of coffee: it was to last for four years, and as presented to the Brazilian public, the intention or hope was that within that period the existing surplus stocks, and any surplus production of future crops, would have been eliminated at the expense of the consumer, and that consumption would by then have increased sufficiently to require the present volume of production. It would, however, be a great mistake to suppose that those responsible honestly believed this version. The more intelligent politicians, planters and commissarios did not, of course, deceive themselves into believing that the consumer would pay the whole tax, and that the milreis price would be maintained at its existing level. They knew perfectly well that the tax would in effect be passed back to the producer by a lowering of gold prices, and that even if this did not happen, the possibilities of consumption increasing to the required extent were so remote that equilibrium could only be restored by a reduction of productive capacity, which would never take place to the required extent so long as the existing milreis price was maintained. On the other hand, they also realised that if, through the pressure of an unwanted surplus supply, the price fell sharply, the market might get completely out of their control, and though this might bring about the necessary abandonment of capacity, it would only be at the cost of a débâcle such as they were absolutely determined to prevent: in any case, to allow such a fall in price, if it could by any means be avoided or postponed, was out of the question for political reasons. A substantial reduction of capacity was the only ultimate remedy, but it must take place gradually, and therefore

some means must be devised to eliminate the surplus which would be produced until the process was complete. Since the planters had refused to accept the direct method of eliminating such surpluses, namely, the tax in kind, an indirect method must be adopted. The Ios, tax was such a method. The proceeds would be sufficient to remove the existing surplus stocks over and above the Realisation Loan stocks, and to prevent fresh accumulations. More than this it could not be expected to achieve, but, on the other hand, it had at least one other, if a negative, virtue, namely, that since the consumer would gradually lower the gold price, the milreis price would presumably also fall, and therefore the tax would be only a temporary hindrance to the process of eliminating the highest cost producers: in other words, the tax would not much affect the course of the only ultimate cure, while it would make possible the maintenance of a strict control over the process of liquidation, the gradual nature of which would thus be ensured. Moreover, the scheme was eminently feasible from a political point of view, because all but the more intelligent could be gulled into believing that the scheme was a panacea for which the foreigner would pay.

In my opinion this view of the situation is sound. Granted that Brazil had definitely chosen curative treatment in preference to a surgical operation, the Ios. export tax should be adjudged an exceedingly clever device, whereby the continuation of the curative treatment was ensured, when otherwise that would not have been possible owing to the pressure on the market of fresh accumulations. In my view, therefore, the scathing criticism which has been poured upon Brazil for her folly and utter stupidity in supposing that such a tax would be a remedy for all her troubles, is really without justification, unless it is assumed that the leaders of politics and the coffee industry in Brazil are such ignorant fools as to believe themselves the version of affairs which they so sedulously propagated for consumption by the Brazilian public. Once more it must be repeated that these leaders are exceedingly clever men, and that crass stupidity is not one of their failings, many as these may be in other directions. The real object of the Ios. export tax was to ensure the continuation of the policy of

^{*} It should be emphasised that the purchase of coffee for destruction and the purchase of the existing stocks in the reguladores are entirely separate schemes, though they are both running side by side. Both are controlled by the Federal Government, but the latter is directly administered by the Federal Treasury, while the administration of the export tax scheme, and the destruction of the coffee bought with the proceeds, are in the hands of the National Coffee Council.

gradual, as opposed to sudden, liquidation, when otherwise it would have been in serious danger of breaking down, and as such it has so far been, and humanly speaking will continue to be, successful. The idea that the responsible leaders of Brazilian policy really thought it was a panacea is simply fantastic.

Some observers abroad, however, have joined in the general disparagement of the scheme for more solid reasons. It has been argued in some quarters that this ros. tax is neither "flesh, fowl nor good red herring" as compared with its full-blooded progenitor, the Murray scheme: that whereas the latter provided a real remedy for the whole problem of the existing stocks, the Ios. tax cannot hope to do more than prevent further accumulations, and that whereas the Murray scheme would have completely solved the exchange problem at any rate for a couple of years, the Ios, tax proceeds are quite insufficient to meet exchange requirements. Now this criticism is valid up to a point. Undoubtedly the ros. tax scheme was evolved out of Mr. Murray's proposals: they certainly provided the germ of the idea. But it would be a great mistake to suppose that in enacting a tax of only 10s., the leaders of Brazilian politics and industry supposed that they were attacking the same objectives as Mr. Murray was attacking. For, as has been already said, the Murray scheme was essentially confined to the short period: its main objective was to provide for a newly-created Government, faced with embarrassments on every side, a real breathing space in which it could design and put into operation a more effectual long-period This was the essential objective: whether Mr. Murray believed that the existing milreis price was sufficiently low to bring about the required abandonment of capacity need not really be considered; if he did, he was in my opinion far too optimistic. As has already been said, the Murray scheme had at least a sporting chance of success, if it had been adopted in January when it was first proposed. But, rightly or wrongly, the Government had turned it down, and by April it was patently clear that the opportunity had passed. For exchange had fallen heavily, and with it the gold price of coffee, so that to achieve its original objective, the tax would have had to be more than 150 per cent., while, since the United States roasters had in the interval considerably reduced retail prices, opposition from the consumer's end would have been far more vigorous. The Murray scheme was not feasible in April, as everyone realised, even if some now thought more highly of its merits. No such scheme could now provide a real breathing space so far

as the exchange problem was concerned, and therefore it could neither do so for the coffee The proposal for the IOS. tax came industry. from the coffee industry, and was designed to alleviate the acute situation which was developing in that sphere: it did not come from the Federal Minister of Finance, nor did he actively support it: indeed, he is said to have remained consistently hostile. Though, in giving his consent, he would not, of course, be unmindful of the fact that the scheme would give him a few more pounds sterling, what was such a contribution in comparison with his needs? Thus the idea that the Ios. tax was aimed at the same objectives as the Murray scheme is not well founded.

One other aspect must be briefly considered. namely, the effects on other producing coun-The advocates of the Murray scheme claimed that even the 100 per cent. tax would not stimulate production in other countries, because it would only last for two years, whereas the coffee tree requires more than twice this period to reach the bearing stage. They admitted that during the two years producers in the mild countries would reap a small fortune if the present price of mild coffees was doubled, but even this would not lead to new planting for the reason just given, while they pointed out that there was little probability, because little reason, for the maintenance of the existing very large premium on mild coffees: this would shrink to the insignificant proportions existing before the crash, and therefore the tax would probably not raise mild prices by anything approaching 100 per cent. But these same persons have been inclined to attack the ios, tax on the ground that four years is a very different matter from two years in respect of stimulating new planting in the mild countries. Admittedly there is some force in this argument, even though four years is still less than the normal gestation period. But if it is assumed that Brazil will in due course pay almost, if not quite, the whole of the tax—if, in other words, the gold price of coffee continues to decline—the benefit to the mild producers disappears, quite apart from any possible effect of the tax on the existing price ratio between Brazilian and mild coffees: the result is simply to prolong the life of the existing marginal producers of mild coffees, not to stimulate new planting. But the idea that Brazil can hope to bring about the destruction of any significant amount of mild production is almost certainly fallacious, though, as has been already noted, it is widely held in Brazil. Brazilian and mild coffees in reality compete to-day only to a limited extent. The world, and especially the American consumer, would seem to have developed a strong preference for mild coffees, and within reason the position may be described by saying that the world demands from Brazil what the mild countries cannot supply. As the price of Brazilian coffee falls, the mild price tends also to fall; there is sufficient competition between the two for this to be inevitable. But when the price falls to an extent which threatens the existence of the marginal producers of mild coffees, the relationship is severed, for the world is not prepared to dispense with any substantial part of the supply of milds, merely because there is more than enough Brazilian coffee to complete the total world demand for coffee of all kinds. The evidence of this lies in the emergence of the very large premium on milds during the last two For example, the better grades of Colombian coffee to-day command a premium of 7 cents a pound, or nearly 100 per cent., as compared with Santos 4's. There seems little doubt that the consumer will not allow the price of milds to fall to a point which would cause the abandonment of mild capacity on any large scale, no matter how low the price of Brazilian This proposition must not, of coffee may fall. course, be construed as implying that the present price of milds is thoroughly profitable for the marginal producers: that is not true, for the consumer will not pay more than is necessary to keep these producers in existence. The point is that the consumer will pay just sufficient for this purpose, even if he can get Brazilian coffees very much more cheaply. Hence my conclusion is that the tax is not likely to make much difference so far as the mild producer is concerned, even if it is continued almost indefinitely, as is, of course, quite possible, and perhaps more than likely. This conclusion, however, should perhaps be modified in respect of producers of robusta coffees, and of qualities inferior by reason of natural conditions. this limited class of coffees, Brazil competes more directly and more sharply; the Ios. tax may tend to prolong the existence of such producers, but it is probably not sufficiently large to prevent the ultimate extinction which is their more or less inevitable fate. But so far, for example, as Colombia or the Central American producers are concerned, the ios. tax will certainly not stimulate new planting, and seems most unlikely to prevent any extinction of existing producers which might otherwise have occurred, since, in fact, such extinction is not in any case to be expected.

All these various arguments which we have been considering depend, of course, upon the supposition that the producer will pay most, if not all, of the tax. Actually the consumer has

never paid the whole tax. Before rumours of the imposition of the tax had become sufficiently strong to influence the market, the New York price was approximately 8.25 cents. The equivalent of the tax was 1.85 cents per lb.,* and therefore the price should have risen to 10·10 cents. It actually reached 9·70 cents soon after April 27th, the date on which the tax was imposed, but thereafter it steadily declined, and at the end of June was 8.90 cents. Subsequently, on rumours of an increase of the tax to 20s., an incident which will shortly be considered, the price recovered to 9:30 cents, but as the probability of such an increase faded away, the decline was resumed, and 7.5 cents had been reached by the end of September. On a superficial view, therefore, the consumer may be said to have passed back the whole of the tax. But it is, of course, possible to argue that, if the tax had not been imposed, the price would have fallen lower still, and that therefore the consumer may still be paying a proportion. It is almost certain, in fact, that the price would have declined, even if the coffee, which has been eliminated by means of the tax, had been eliminated in some other way, but the extent of such a decline cannot be gauged with any approach to accuracy, and the exact incidence of the tax is really an insoluble problem. There can, however, be little doubt that most of the tax is now being borne by the producer,† or rather by Brazil as a nation. This is a point of some importance. With a stable exchange such a decline in the gold price would have brought about a more or less equivalent fall in the milreis price, and the incidence of the tax would have been solely and directly upon But exchange has not been the planters. stable, and has in fact fallen heavily: hence the milreis price has only fallen from 18\$200 per 10 kilos in mid-April to 15\$500 at the end of October. In other words, the burden of the tax is being mainly borne by Brazil as a whole and

^{*} I.e. while sterling was on a gold basis. † The rapid transference of the 10s. tax may suggest the † The rapid transference of the 10s. tax may suggest the idea that a similar, and perhaps even more rapid, transference of the much larger tax of Mr. Murray's scheme would have taken place. Personally I doubt this, because the strength of the consumer's position under the present scheme is based not only on the existence of excess capacity for production, but also on the continued existence of vast stocks, and the latter is probably the more dominating factor in market psychology. Under Mr. Murray's scheme the excessive stocks would have been eliminated in two years, and the consumer was faced with the prospect of having to rely on current production without the eliminated in two years, and the consumer was faced with the prospect of having to rely on current production without the safeguard of large stocks. Moreover, the whole economic position of Brazil, and therefore the Federal Government's general power of control over coffee, would have been vastly stronger if Mr. Murray's scheme had gone according to plan. The consumer would probably not have paid the whole of his 100 per cent. tax, but it seems unlikely that he would have been able to transfer any large part within the comparatively short period of two years, during which his position was daily losing its superiority. Reference may also be made on this point to the considerations put forward on p. 65 above.

all with interests in Brazil, and only in part by the actual growers of coffee, though they, of course, are bearing their share as Brazilians together with an extra slice represented by the fall in the milreis price. Since the planter's costs are mainly influenced by the internal value of the milreis, i.e. by wages and home-produced commodities, and not much by the external gold value of the milreis, i.e. as represented by the price of imports, it follows—and this is the important point—that the transference of the tax from the consumer to the producing country has not so far much increased the pressure on the actual growers to abandon

production.

The intimate connection between the price of coffee and exchange has here been exemplified to the full. The fall in the price of coffee has, of course, been mainly responsible for the fall in exchange, since the extent of direct inflation by the Brazilian Government, and other such factors, have not been really significant. But the fall in exchange means that, in order to balance her international account, Brazil must levy taxation to an almost inconceivable extent, or obtain relief by defaulting on the current obligations of interest on her foreign loans, for there is little or no possibility of reducing imports much below the present level, and still less of expanding the exports of commodities other than coffee to the required extent. Since taxation on the requisite scale is also virtually impossible, Brazil has been forced to seek relief by postponing the payment a large part * of the £35,000,000-£40,000,000 due annually for the service of her foreign debts. In this way, and in this way only, can the relationship between coffee and exchange be severed sufficiently to allow exchange and the milreis price of coffee to go their separate ways. Now, as the milreis price of coffee falls, the producer of coffee will directly and more fully feel the pinch until the surplus productive capacity has been eliminated. When this has been accomplished, the price of coffee will rise again to a normal level, and equilibrium within the coffee industry will bring with it the restoration of some sort of equilibrium in Brazil's international account.

as to why consumers have been able thus to force down the gold price of coffee. answer can be put most succinctly by a review of the outlook at the commencement of the present crop year, i.e. on July 1st last. regards supplies, the Santos crop of 1931-32 was

estimated by the Institute at 17 million bags.* and the 1932-33 crop at 9 million bags. the entries of new crop coffee into Santos at one twenty-fourth of the total of the two crops were 1,083,000 bags a month. To this must be added 130,000 bags of "Planters' coffee" under the Realisation Loan scheme, and 25,000 bags of "Government coffee," making a grand total of 1,238,000 bags a month, or 14.8 million bags a year. The port entries from all the other States cannot be put at much less than 7 million bags in the year. Thus the total prospective supply was at least 21.5 million bags. But the world will certainly not require more than 16 million bags at the most. On this basis the 10s. export tax would yield as much as £8,000,000, but at an exchange rate of, say. 3.5 pence, this would not buy more than about 6-7 million bags, even assuming the purchase of the poorer qualities. Thus it seemed probable that the 10s. tax would be hardly sufficient to take care of the new crop surplus, let alone effect any reduction in the 5-6 million bags of stocks over and above the Realisation Loan stocks. Buyers could therefore count definitely on ample supplies under the new scheme of control, and in the background there was, of course, the certainty that Brazil would not dare to keep off the market a single bag which could, in fact, be sold for consumption as opposed to speculative holding. The latter Brazil would obviously not permit until she was beaten, but in any case it could not become considerable so long as the volume of stocks remained so vast, and the excess productive capacity so little reduced, unless the price virtually collapsed altogether. Buyers have long been in a strong position, and have been able to force down prices steadily and gradually, though unable to precipitate a sudden break because of the maintenance of control over entries, and more recently the operations based on the 10s. tax. Even if the Ios. tax scheme had seemed fully capable of achieving its object, the price would have fallen in much the same way, for the simple reason that Brazil must sell all she possibly can, at any price consistent with the avoidance of a collapse of her controlling power.

Though Brazil dare not withhold from the market a single bag, it is also true that she dare not press on to the market a single bag more than the market is prepared to take. the possible insufficiency of the 10s. tax to take care of any offerings surplus to consumer's requirements which at the beginning of July, gave rise to rumours that the tax would be

A brief explanation should perhaps be given * At the time of writing only Federal Government loans have been funded, but it may be surmised that this example will be copied by the States in respect of a part at least of their obligations.

^{*} Incidentally it may be observed that this was no less than 3 million bags more than the earlier estimate on which Santos entries had been based during 1930-31.

doubled. These rumours were almost certainly not without foundation. But in the end the Government evidently decided to wait until the danger of a collapse in the price of coffee became more pronounced, for so far as exchange was concerned, the benefit would be only temporary and the game not worth the candle: almost everyone whom I met in Brazil during June and July, both Brazilians and English, was clear that a temporary suspension of foreign interest payments was inevitable. Since July, the prospects that the Ios. tax will be sufficient to prevent further accumulations of coffee have considerably improved. There now seems a possibility that after all the current crop may not reach 17 million bags, while the frost which occurred last June over a large area of São Paulo has occasioned a downward revision of unofficial estimates for the 1932-33 crop. Until the divorce of sterling from gold at the end of September, the fall in the value of the milreis, and the slight fall in the milreis price of coffee, were both helping the situation considerably. Since then, the 10s. tax has been converted into a dollar tax, and therefore the rise in the exchange on London has made no difference. The recent moratorium on Federal loans, however, implies the probability of a rise in the gold value of the milreis sooner or later, but, as explained above, this breaks the chain which has hitherto bound together the price of coffee and the gold value of the milreis, so that the milreis price of coffee will now probably fall more than sufficiently to counterbalance the effect of any rise in the dollar exchange. There seems little reason, therefore, to suppose that the proceeds of the export tax will not be sufficient to prevent accumulations of stocks, at least in the immediate future.*

Even on this assumption, however, there is no reason why the gradual decline in the gold price should not continue, until the milreis price has fallen to the extent necessary to cause the abandonment of the existing surplus capacity for production. Unless and until that happens, buyers need have no fears that by pressing down the price they will precipitate a shortage in the near future. There are doubtless a few persons who would maintain that the continuance of the present milreis price for, say, another season will accomplish this end, but for reasons which will now be developed at some length,

this is almost certainly a delusion. Though the milreis price has already fallen to an almost unbelievable extent, I personally take sides with those observers who conclude that the milreis price must still fall very considerably further before any large-scale abandonment of plantations will take place within a reasonably short period. The issue is, of course, of such vital importance as to demand full and detailed consideration.

In the first place, it must be repeated that the magnitude of the reduction required is very large. To-day the excess of capacity appears to be equivalent to some figure in the region of 5 million bags for Brazil as a whole, allowance being made for the liquidation of the 1.2 million bags of Realisation Loan stocks in addition to current production. But a very large number of trees, planted between 1927 and 1929, have not yet come into bearing, and these will add a further 2–3 million bags at least during the next two or three years, and more as they reach full maturity. On the other hand, it would be most unreasonable to assume the indefinite continuance of recent average yields. In the first place, there can be no doubt that the weather has been singularly favourable in recent years, and it may be assumed that sooner or later it will become correspondingly unfavourable. Secondly, allowance must be made for the less careful cultivation which has been given during the last two seasons, and which will be still further reduced in the future: in particular, little effort is now being made to combat the insect pest, known as the stephanodores, and it is quite possible, if not indeed probable, that its ravages will soon become quantitatively important. Thirdly, allowance must be made for the effect of the widespread interplanting of cereals between the coffee trees. Probably 80 per cent. of the total area under coffee is now interplanted, and many authorities assert that the result of interplanting is to lower coffee yields by 10 per cent. in the second or third year, and by as much as 20 per cent. in the fourth or fifth year. The cereals, especially maize, absorb large amounts of water, of which the coffee tree can never have too much. Some experts, however, would consider these figures an exaggeration on the ground that the ploughing involved is a beneficial form of cultivation, which tends to offset the absorption of water, while it must be realised that the 20 per cent. of the area which is not interplanted is the highest yielding portion of the whole. Undoubtedly, however, interplanting is a powerful factor making for lower yields. Fourthly, consumption may be expected to increase slowly. Nevertheless,

^{*} Up to October 31st, that is, in a period of six months, the National Coffee Council had purchased a little over 2 million bags for destruction. But the annual total may be expected to reach considerably more than twice this amount, for there must necessarily be some lag in starting the machinery of such a scheme, and the effects of the more favourable conditions which have recently come about, have probably not yet been fully obtained. Up to December 26th the total purchases amounted to 2.7 million bags.

when all these and other unfavourable factors are given the fullest possible weight, it seems likely that a dictator would take measures to cut down the productive capacity of Brazil as a whole by 3-4 million bags at the very least, of which 2-3 million bags would be in São Paulo. This is a very large amount. Since conditions differ so widely, attention will be concentrated on the probabilities of the requisite reduction of 2-3 million bags in São Paulo; if that is achieved, it may be taken for granted that there will also have been a substantial reduction in the rest of Brazil.

Secondly, it must be realised how large is the margin between the price which will yield a 10 per cent. return on the normal capital value of a fazenda, and the price which will just cover actual costs. For example, according to the estimates of Dr. Muniz, which have already been extensively quoted, a price of 23\$860 per 10 kilos was necessary in 1928 to yield a 10 per cent. return in the case of his Intermediary Zone fazenda, but a price of rather less than 18\$000 would have covered the full costs of production, including interest on working capital. prices ruling before the crash in October 1929 were, of course, yielding nearer 20 per cent. than 10 per cent. to such a fazenda on the basis of a normal crop, though actually in the summer of 1929 the cash position would have been strained for the reasons given in Section II C. On the basis of a normal crop, therefore, the Santos price could fall very considerably before profits were obliterated.

The fall in price, however, has, of course, been far greater than could be met without a reduction of costs. This has, in fact, been so tremendous as to be almost unbelievable by anyone who is not acquainted with local conditions in São Paulo, and in Brazil generally. In the 1928-29 season the colonist's price for the cultivation of 1000 trees was 500 \$000 over a very wide area in São Paulo: in the new zones it was higher still, though considerably lower in the old zone round Campinas. To-day the corresponding figure is 180-200\$000 if the colonist is given separate land for cereal cultivation, and as little as 150\$000 if he is allowed to plant cereals between the coffee trees. larly the price for picking has been nearly cut in half. The wages of all carters, and of the labour employed on the drying grounds, etc., have also been drastically reduced. When it is remembered that, in all, labour costs form 70-80 per cent. of the total costs ex fazenda, the significance of these reductions can be appreciated. But in addition there are many other items of cost which can be reduced, and others which can if necessary be eliminated altogether,

without seriously affecting productive capacity or the quality of the product, at any rate for a short period. To-day, even more than in the past, it is most difficult to make any generalised statements as to actual costs, even for a particular crop. It is true that the former variations in the cost of labour as between different parts of the country have been much reduced, for wages everywhere have been brought down to what may be termed subsistence level, which means incidentally that producers in the new zones are no longer handicapped by having to pay much higher wages than their competitors in the old zone. This greater uniformity in wage costs makes the problem somewhat easier. for costs now vary more closely with yields, and if a reliable figure can be established for a given yield, this can more legitimately be used as a basis for calculating the costs for other vields. But there is still the major difficulty that no information is available as to the proportions in which the existing trees are spread out over the range of yields, and the effective range of yields is certainly wider than ever today owing to the extensive new planting, and owing to the probably more rapid deterioration of the oldest trees consequent on the cessation of the intensive cultivation which was given them up to 1929. There are also many minor. though still formidable, difficulties. For example, in order to make a true comparison of costs, it is necessary to make allowances for variations in the quality of the product in so far as that is within the control of the producer: some of the lowest costs are to be found on small fazendas in the new areas, but the quality of the product is poor, at any rate partly because of very inferior preparation. Again, there is no doubt that clever management has effected appreciably greater economies in some cases than in others, and it is extremely hard to evaluate the factor of management and its influence on a particular fazenda's accounts.

Summarising the scanty specific data for particular fazendas, and all the general information which I have been able to secure relative to production in São Paulo, my guess—for it can hardly be termed even an estimate—is that the range of costs of production ex

fazenda may be as follows:

Fazendas with a normal yield of 80 arrobas per 1000 trees = 25-30 milreis per bag.

Fazendas with a normal yield of 60 arrobas per 1000 trees = 33-38 milreis per bag.

Fazendas with a normal yield of 40 arrobas per 1000 trees = 40-45 milreis per bag.

Fazendas with a normal yield of 30 arrobas per 1000 trees = 50-55 milreis per bag.

Fazendas with a normal yield of 20 arrobas per 1000 trees = 60-70 milreis per bag.

A guess as to the number of trees with any given normal yield is even more hazardous. Of the 1300 million trees officially estimated to be in bearing in the State of São Paulo, some 400-500 million are less than fifteen years old, and, since they have mostly been planted on very fertile land, these will have a normal yield of certainly 70 arrobas, and probably very much more, during the next few years. Of the 800-850 million trees in bearing in 1917, not much more than 100 million had come into bearing since 1902, for new planting had been prohibited from 1902 to 1911. Hence, probably some 700 million trees existing to-day are more than thirty years old, and at least half this number are forty to fifty years old or more. The latter would not yield more than 30 arrobas per 1000 trees as against between 30 and 50 arrobas for the other and younger half. The distribution according to yield may therefore be reckoned as follows:

200 million trees with normal yields exceeding 100 arrobas per 1000 trees,

300 million trees with normal yields of between 70-100 arrobas per 1000 trees,

100 million trees with normal yields of between 50-70 arrobas per 1000 trees,

350 million trees with normal yields of between 30-50 arrobas per 1000 trees,

350 million trees with normal yields of under 30 arrobas per 1000 trees.

It must, however, be emphatically stated that these and the previous figures of costs are really sheer guesswork, and are given with the utmost reserve, and only for the purpose of demonstrating the very broad essentials of the position in a reasonably concrete and terse form.

On the basis of this data, the relation of the current price level and costs of production would appear to be as follows. Between the delivery of coffee and its arrival for sale in the Santos market, the following charges are incurred (see table at top of next column).

The Santos price on October 1st was approximately 90 \$000 per bag, of which, therefore, the farmer was getting, say, 55 \$000 per bag, though since few farmers produce a crop which averages Grade 4, it will be advisable to reduce average receipts to 50 \$000 * per bag. Referring to the estimates above, it therefore appears that fazendas with a normal yield of less than 30 arrobas per 1000 trees are only able to

Freight (an average figure) Gold Transport Tax 18000	Per bag. 10\$000	
(= 27d.) about	7\$000	(Exchange rate fixed monthly; rate assumed to be a little under 4d.)
3s. Tax (Realisation Loan		
account) about	9\$000	(Exchange rate* fixed daily; rate assumed to be a little under
		4d.)
Charges at Santos Public		
Warehouse	2\$000	
Depreciation on bag Loss of Weight	1\$000 0\$300	
	29\$300	
Interest for six months on	20,000	
40 \$000 advance	28500	
(3 per cent. on sale price of 90\$000)	2\$700	
	348500	

* Since the divorce of sterling from gold, this tax has been maintained on a gold basis, and the relevant exchange rate is now that on New York.

produce a normal crop at a loss, and there are 350 million trees which average under this yield. Broadly, therefore, it may be said that 350 million trees should speedily go out of production if the present price level is maintained. If these 350 million trees be taken as averaging 25 arrobas per 1000 trees, their production would amount to 2.2 million bags, and it has been concluded above that the re-establishment of equilibrium demands a reduction of capacity by 2–3 million bags. It would therefore appear that the present price is nearly if not quite low enough. Much, of course, depends on the estimate of 350 million trees with a normal yield of less than 30 arrobas. If this is an overestimate, the price must fall still lower, and the figure more probably errs in that direction than in the other. But in view of the arguments now to be developed, it is deemed desirable to present this theoretical part of the case in as favourable a light as possible. For it is now necessary to consider whether this elimination of 350 million trees, which should theoretically take place at the existing price level, will, in fact, be accomplished with any reasonable

It must be realised that very few fazendas will be wholly abandoned unless, and until, the owner becomes so short of cash that he cannot pay his current cash obligations, which means, in fact, his wage bill: the few exceptions will be men who have plenty of capital or credit resources, but deliberately turn their old coffee plantations in citrous fruit orchards. But even when a planter cannot pay wages, there may be a considerable interval before his labour leaves the fazenda, and various arrangements of

^{*} Normally there is a difference of 1 milreis per 10 kilos between the grades, i.e. 6 milreis per bag.

a temporary character are possible. For the colonist has to-day few opportunities of employment if he leaves his present job, and so long as he stays on the fazenda, he has a roof over his head, and can grow enough cereals, together with a few pigs and possibly a cow or two, to feed himself and his family. This means very inferior cultivation of the coffee trees, but it is at least sufficient to prevent the virtual destruction which so rapidly results if weed growth goes completely unchecked, while the crop would, of course, be picked. Better results, in the sense of better cultivation, would, however, be secured by giving the colonist a direct interest in the coffee. In answer to my question as to what they would do if and when the worst happens, and they can no longer pay wages, several fazendeiros replied that, rather than abandon their plantations, they would temporarily hand them over to the colonists, and confine their own sphere to the drying and preparation, for which they would either make a fixed charge per bag of coffee, or arrange some profit-sharing basis. Such an arrangement has, of course, been commonly made in times of acute trade depression between the Chinese owners of tin mines in Malaya and their coolies: the result is that the coolies work so much harder, when thus working directly for their own pockets, that costs are greatly re-There seems no reason to suppose that the results would not be somewhat similar in the case of coffee plantations, and their abandonment would thus be still further and considerably delayed.

So far, however, there are comparatively few fazendas which are in any real danger of running short of cash. The 1930–31 crop was small and therefore costly. In June 1930 the 1929 crop began to reach Santos, and this crop had not only been very large and therefore cheaply produced, but it had been financed at a much lower figure: consequently its sale leaves some surplus which has helped the commissarios, directly or through the banks, to find the bare minimum of cash required by the planters. Somehow nearly all planters survived the strain of the 1930 crop, though in a certain number of cases there was delay in paying the colonists, and that crop year is now past history. The present crop is, of course, well above normal, and therefore costs have been below normal. From July 1st onwards, the planter began to receive a steady flow of cash for the half of his crop which now goes direct to Santos: on the other half, which goes to the reguladores,* he has been obtaining

35-40 \$000 from the banks. In addition, the purchase of the stocks by the Federal Government will bring the planter probably 5-10 \$000 per bag, and the 20\$000 bond, which the São Paulo Government is presenting on each bag, can be sold for about 10\$000 cash. There is little doubt that this season the vast majority of São Paulo planters are in a relatively comfortable position: all traders, both wholesale and retail, are confident that the worst is passed, and can boast of slowly rising sales, while the "country bumpkins" who have not been seen by the citizens of São Paulo city since early 1929 are now once more in evidence. Though the adverse exchange rate, if nothing else, prevented holidays in Europe, the Santos season was the best for years, and every available bed was occupied! Too much weight should not, of course, be attached to such developments; in the main they signify that the lower cost producers have surmounted the difficulties into which even the lowest of them were plunged by the 1929 crash, and that they are now once more making money, as they undoubtedly can do even at present prices. There is room for distress as well as relative prosperity in an industry where costs extend over such a wide range. But there is little evidence to suggest that any significant number of producers will be forced to abandon their plantations during the present crop year: on the contrary, their position is improving, and the strain is less than last year.

Little wholesale abandonment of capacity can therefore be anticipated for another twelvemonth, assuming no further material fall in the Then with the short crop for 1932–33, of which there is every indication, the strain will again be intensified. From this point onwards, the future course of events must necessarily become highly speculative, even on the assumptions now being made. If in the early autumn of 1932 there are indications of another fairly large crop—if, that is, we assume a sequence of large and small crops in alternate years—it can hardly be doubted that in the short crop year the high cost producers would strain every resource to hold on until the large crop enabled them to recover their position in whole or in part, and, as we have seen, their resources of one kind or another are considerable. Unless the large crop caused a complete breakdown of all financing arrangements and a general disruption of control—a possibility which must not be entirely overlooked—the process of elimination

^{*} New regulations for the delivery of future crops to ports were issued on June 2nd, 1931. The series system is main-

tained in a modified form, and in brief the planter is allowed to ship alternate series direct to the ports, the intervening series being sent to the reguladores and released in conformity with the Realisation Loan scheme of averaging two crops.

would thus be extremely slow, much slower than it would be with a succession of normal crops. But though this alternation of large and small crops has been a feature of the period since 1927, it was not so noticeable in earlier years, and there is no valid reason to expect its continuance in the future. Without much doubt it has been due partly to a chance succession of favourable seasons, which enabled the trees to recover rapidly from the strain of the big crops, partly to better cultivation, which has the same effect, and partly to the large number of new trees possessing the recuperative power of youth. The first of these causes is unlikely to continue much longer—this year has indeed seen a fairly serious frost—and the second and third will diminish rapidly and slowly respectively. Moreover, if such an alternation does continue, and therefore no effective reduction of capacity takes place, larger and ever larger supplies will come forward to the Santos market as the plantings of 1928 and 1929 come into full bearing, and the price will inevitably fall lower unless the present scheme of entries is altered, and that will involve a further accumulation of stocks. In either case, therefore, it seems impossible to resist the conclusion that the price must fall considerably further before the required reduction of capacity will take place with reasonable speed, though as always this must be qualified by reference to the weather, for a series of unfavourable seasons would place a strain on the cash resources of the highest cost producers greater than any relief they might experience by the effect on prices. Apart from the weather, as prices decline, the strain on the highest cost producers will gradually become intolerable, but it is necessary to emphasise the qualifying adverb. The process is bound to be gradual for at least two reasons. The first is that no further sudden or sharp break in prices can now be anticipated unless the Government stops buying for destruction.* If then prices decline only gradually, the strain will only be intensified gradually. Secondly, the actual process of eliminating capacity will be slow and gradual, because of the resistance which the planter can offer in the last resort. Thus I cannot see any reason to anticipate a sudden large-scale abandonment, for the breaking-point will come at a different time for each individual producer, rather than simultaneously for all or a large number, save only if the weather takes a hand in the game. Already the process has begun in that a large number of the medium, as well as the high cost producers, have abandoned a small patch of a few dozen poor yielding

* This recently happened for three days, and there was almost a collapse of prices until buying was resumed.

trees here, and another perhaps larger patch in that dip there. It would be a mistake to underrate the total combined effect, but it would be still more silly to pretend that this form of abandonment can ever be sufficient. The abandonment of complete estates, and many of them, must come, but it will only come gradually, though doubtless the rate will progressively increase as time goes on. Brazil has, rightly or wrongly, chosen curative treatment to the surgeon's knife, and physicians, as compared with surgeons, take their time.

Certain other aspects of the situation, however, still require consideration. Many persons, both in Brazil as well as abroad, consider that the necessary reduction of capacity will come about not only through the abandonment of old high cost plantations, but also of new plantations in the more remote parts of the interior. As has already been noted, an appreciable part of the new planting in 1927-29 was done by ex-colonists who, having saved money, bought relatively small lots of cheap jungle land (cheap because of transport difficulties, and not because the soil was poor), and planted coffee, reckoning to finance themselves until the trees came into bearing by the sale of interplanted cereals, which of course commanded a high price until after the crash, when interplanting was once more generally allowed on ordinary plantations. The majority of these new plantations are not yet in bearing, and the present price of cereals is such that transport to the nearest railway station beyond a distance of, say, five miles has become prohibitive. It is undoubtedly true that on these more remote plantations a bag of rice or beans can be had for the asking! It is therefore argued by some people that these small men will be forced to abandon their plantations for want of cash, and to return to the status of colonists or wageearners. But this seems highly improbable, for the simple reason that these men need so little cash. The family can grow all its own food without any doubt, and since they have no rent to pay, their only absolutely necessary need for cash is virtually confined to clothing, and that means a shirt and trousers sufficiently complete to comply with moral decency. After raising its own food, the family will still have time to spare for keeping down at least the ranker weed growth round the young coffee trees: the clean weeding and careful preparation required to harvest a crop is not required until the trees have a crop to harvest. Hence these families can continue to exist, and to ensure the existence of their coffee. If in the future, when their coffee is in bearing, the price has fallen to a point where it will not cover the admittedly heavy costs of transport and the wages to the assistants who may then be necessary, after a time these small growers may throw in their hand, though it should be realised that they are perhaps the very lowest cost producers explantation, and can therefore afford to pay high transport costs. But this is looking far into the future. In the next year or two these men will undoubtedly endure the most terrible privations before they abandon their savings and all hope of making a comfortable income, and though some, through sickness or other misfortunes, will doubtless be defeated despite their utmost endeavours, the quantitative effect will be

negligible. Another aspect of the whole situation is the extent to which fazendas are carrying mortgages. About 70-80 per cent. of fazendas are mortgaged in one way or another—the higher figure is probably nearer the truth—and it is argued by some people that these mortgage obligations will be a powerful factor in bringing about a rapid large-scale abandonment of plantations, owing to the planter's inability to discharge his obligations of interest, let alone amortisation. A little investigation of the real nature of this mortgage situation, and a little reflection, will, however, show that, so far from being a factor operating to bring about abandonment more rapidly than would otherwise happen, it operates in precisely the opposite direction, and is likely to do so at least for some considerable time yet. The existing mortgages on fazendas can be subdivided into three main classes, each of which has distinctive characteristics of its own. A planter who, in the years of prosperity before the crash in October 1929, wanted money in excess of what he could obtain by discounting his bills of lading through his commissario—for example, for new planting or for the purchase of another fazenda—would have to raise it by a mortgage on his fazenda. Normally he would apply to his commissario, who would furnish the money either from his own capital or more commonly by borrowing on his own security from the banks. If the commissario would not give satisfactory terms, the planter could go direct to the Banco do Estado, and borrow on gold terms, which, assuming a stable exchange, were quite attractive. By 1927–28 the Santos commissarios had more or less exhausted such resources as they were willing to invest in mortgages, and therefore the Banco do Estado was doing most of what was by then a very large volume of such mortgage business.

Besides these two classes of mortgage holders—the commissarios and the Banco do Estado—a third class is composed of private individuals

who sold their fazendas, receiving only onethird, or more often less, of the purchase price in cash, and the rest in the form of a mortgage on the property. It is estimated that 20 per cent. of the trees in São Paulo changed hands between 1926 and 1929, and these mortgages were based on the very high purchase prices of 8-12\$000 per tree which were then ruling. Mortgages by commissarios or the Banco do Estado did not usually run above 3-4\$000. Very broadly it may be estimated that commissarios hold mortgages to-day on 20 per cent. of the trees in São Paulo, the Banco do Estado on 45 per cent., and private individuals on 15 per cent., but it should be understood that no definite statistics are available, and the above figures represent merely the mean of estimates supplied to me by individual commissarios, bankers and others.

These different kinds of mortgages must be separately considered as regards their probable influence on the farmers' position.

(a) Mortgages between farmers and commissarios:

Since the crash the farmers have been able to reduce their outstanding liabilities with the commissarios only very slightly: this amounts to the same thing as saying that on their mortgages they have paid little interest, and no amortisation charges. But the commissarios have found it impossible to sell their rights at any reasonable price, and so they have been forced to pursue a policy of nursing these fazendas, thus preserving their assets in so far as their own financial position permits. In their turn the majority of the commissarios are indebted to the banks, and most of them are much in arrears with interest payments, let alone amortisation. But their own capital is usually insignificant compared with their liabilities, and therefore the only practical policy for the banks amounts to keeping the commissario in existence and at work, in the hope that gradually he will pay off his debts. This policy has already had some success, for a number of the larger commissarios have already regained solvency, while it may also be remarked that the banks know well enough that they could find no better agent than the commissario concerned for the administration of the mortgaged fazendas, which would be directly on their hands if they foreclosed on the commissario; so far as the banks are concerned, he is, in fact, the best possible type of agent and does his work for nothing. Thus the banks have a strong interest in nursing the commissario, and through him the planter: and the banks will therefore supply the commissario with enough money to keep the planter alive, since the only alternative is more or less complete loss. Ultimately the banks will doubtless decide to cut their worst losses, but they will not do so until the commissarios and the planters have been costing them substantial sums of money for some time, and, as we have already seen, for another year at least the vast majority of planters will be able to meet current expenses out of current receipts.

(b) Mortgages between farmers and the

Banco do Estado.

Since these mortgages are in terms of sterling, the collapse of exchange has made it enormously difficult for the planter to pay the full interest, though, of course, the divorce of sterling from gold is a new factor in the situation, tending to ease the burden at least as compared with what it would otherwise have been. But unless, and until, exchange makes a miraculous recovery, the Banco do Estado has small hopes of securing anything like full interest payments, and little or no hope of receiving the amortisation charges. Yet, as in the case of the commissarios, foreclosure is of little or no advantage, and in addition the Banco must take political considerations into account, so that there can be little doubt that the Banco will try and maintain the fazendas concerned in some sort of working order, even if that means further advances to cover working expenses. As has been said, for another year such advances will not in most cases be required: after that the real issue is the Banco's own ability to find the cash. Since this really depends upon the will and ability of the State Government of São Paulo to keep the Banco afloat, the question may legitimately be left unanswered. All that can reasonably be said is that if the Banco falls, then a very large area of coffee will speedily pass out of existence: otherwise it seems most unlikely that the Banco will screw up its courage to cut any large part of its losses, even if it could safely do so.

(c) Mortgages between farmers and the

previous owners of their plantations.

This class of mortgage is already being terminated in many cases by the mortgagor resuming possession, and some of them will be able to use the cash purchase money originally received as the basis for borrowing, should working expenses demand it. In other cases, the mortgagor does not want to administer the property himself, and so he is extending both interest and amortisation claims, the mortgagee virtually fulfilling the functions of an unpaid agent. If receipts do not cover bare expenses, some of these mortgagors will probably have to abandon their plantations, but many of them may be able to get sufficient assistance from

the banks to carry on for a considerable time.

Thus for different reasons in different cases the mortgage position is not, in general, such as to constitute a strong factor making for the abandonment of fazendas on a large scale, at any rate in the near future. The planter's powers of resistance would, of course, be greater if he had no mortgages, because then he would presumably be able to obtain them, and so meet any deficits on working expenditure for a very considerable time. But the fortunes of the mortgagee planters, the commissarios, and the banks are so intertwined that there is no conflict of interests, and their combined resources are probably considerable in practice. After what has been said, a generalisation can therefore be made without risk of misunderstanding to the effect that the mortgage position is not a factor of concrete importance, so far as

the immediate future is concerned.

While a further slow, but ultimately considerable, decline of price seems therefore to be inevitable in order to secure the abandonment of capacity on the large scale required, it is important not to under-estimate the snowball nature of the process. Already, as has been said, small patches of coffee have been abandoned on a large number of estates, while larger areas of very old coffee are being planted with citrous fruits. If, indeed, the planters could put their land to other profitable uses, they would doubtless be more ready to abandon the production of coffee. But land which has grown coffee for forty or fifty years and more will not, without a heavy expenditure on manuring, grow much else, citrous fruits being apparently the only real exception; and few planters have the capital resources for such expenditure. The only alternative in most cases is to convert the plantation into pasture land, and even this is relatively expensive, while at the present time there is probably no great scope for further meat production.* Nevertheless, it will doubtless be true that the resourcefulness of the real farmer will find ways and means of turning his land to other uses, and too much importance should not be attached to this aspect of the situation, beyond an appreciation of the fact that there is no ready and alluring alternative. Again, if adequate information were available, it might be found that more young coffee has been, or is about to be, abandoned than seems probable on prima facie grounds and our present very limited data. Equally, some commissarios and some banks may be reaching a

^{*} It may be observed that the depreciation of the Argentine exchange has neutralised the advantage which would otherwise have accrued to Brazilian cattle producers through the depreciation of the milreis.

point where they feel it desirable, and possible, to cut a portion of their ultimate losses. But when the maximum reasonable weight has been allowed to all these tendencies, it can hardly be doubted that their combined effect will be altogether inadequate, so long as the price remains at its present level. As the price declines, the snowball will gather both size and momentum, and gradually these, so to speak, "nibblings" at productive capacity will become larger and larger bites. But emphasis must once more be laid upon the gradual character of the process, unless indeed the weather takes a hand—a possibility which must not be overlooked—for the weather can hardly be more favourable to the planter than it has been in recent years, and there is, therefore, a vague sort of presumption that before long it must take a turn for the worse.

If the foreign observer looks back as far as October 1929, though no farther, and asks himself whether in her own interests Brazil could have adopted a better policy than that which has been carried out, he will in my opinion confess that in her own interests she has taken the best possible courses, unless it be the adoption of Mr. Murray's daring scheme. Though I have given my reasons for doubting the ultimate success of that scheme, it would be rash to deny it the possibility of a sporting chance, or to underrate the short period advantages which success would have brought. on the whole the Ios. export tax is probably the sounder scheme. It is essentially a concealed tax on the producer, though the consumer has been, and perhaps still is, paying a share. But it does make possible the continuance of a gradual liquidation, when otherwise there would have been a complete smash-up of the economic life of Brazil. The only alternative to the export tax was the tax in kind, and from Brazil's point of view, it can at least be urged that the foreigner has made some contribution under the former, which would not have been so under the latter: in any case the tax in kind was not politically feasible, even if it was economically the better solution, though this is a doubtful issue. Granted that the continuation of artificial control in some form was preferable to a more or less immediate return to laissez-faire, Brazil has so far made as few and small mistakes in the process of liquidation as she made many and large in the preceding process of valorisation. Those who will not grant this premise in favour of a continuation of artificial control must not be allowed to

minimise the immediate results of a return to laissez-faire, even if their arguments as to its probable superiority in the long run be conceded. Those "City magnates" who advocated the removal of all control at the end of 1929 did not make it clear, for example, that so far as London or New York were concerned, the price would be not merely some temporary moratorium scheme on Brazilian loans, but immediate complete default, and quite possibly repudia-A more or less general moratorium is doubtless unavoidable even now, but its duration should not be so long, while repudiation is out of the picture. For Brazil is maintaining, and will continue to maintain, the essential structure of her economic life at least as well as many other nations in this present world crisis. Even if there is another very big crop in 1933-34—and this is the one really terrifying possibility now left on the horizon—it may be surmised that somehow or other a complete breakdown will be avoided. It may be ten years before Brazil regains a satisfactory economic stability, but this is preferable to the utter ruin and chaos into which she would have been plunged by the advocates of an immediate return to laissez-faire. Brazil is being taught a lesson which she will not soon forget, but this lesson is not the admirable qualities and inestimable benefits of theoretical laissez-faire. The coffee producer is as convinced as ever of the benefits of coffee defence, meaning thereby the control of price which accrues from organised stockholding by producers, and he is as determined as ever not to return within the clutches of the merchant speculator. The lesson which Brazil has learnt, is that valorisation, in the sense of an artificial raising of price above the true normal level, is accompanied by risks which no good luck can cancel out. Coffee defence in the future will be even more interesting to the student of economics than in the past, for at least the grosser errors and the more obvious pitfalls should henceforth be avoided.

A BRIEF SUMMARY OF LATER DEVELOPMENTS

Jan. 11th, 1932.—As stated in a note at the beginning, this section was written during the month of November 1931. The manuscript had barely reached the printer before an entirely new scheme of control was proposed by the coffee-producing states at a convention held during the first week of December, and the necessary legislation to bring it into operation was quickly passed. In brief, the

scheme may be summarised under the following headings:—

- (I) The National Coffee Council has taken over complete charge of all arrangements and measures concerning coffee and its defence. Thus the business of purchasing the interior stocks existing on June 30th, 1931, has been handed over to the Council by the Federal Government, and the Council are to "supply the means for the realisation of this purchase": incidentally the Council is to take charge of the liquidation of the Hard and Rand loan and the wheat-coffee exchange with the U.S. Grain Stabilising Corporation. Apparently the Council also takes over general responsibility for the liquidation of the Realisation Loan. Further, the Council is authorised to effect any internal credit operations; external credit operations may only be arranged after express authorisation by the States.
- (2) The 10s. gold export tax has been increased to 15s. gold, and the 3s. transportation tax guaranteeing the interest of the Realisation Loan has been rescinded. Of the new 15s. tax, 10s. will be collected and applied as heretofore, but the remaining 5s. is payable in sight drafts on New York and London, and will be applied exclusively to the service of the £20 million Realisation Loan, any surplus not required for this purpose being returned to the States in the following year.

(3) The Council "will defend the actual quotations in the national market in the form it deems most convenient."

(4) The Council "will eliminate within the maximum time of one year, at the rate of I million bags per month, twelve million bags of coffee."

In conformity with the objects stated in (3) and (4) above, the Council has apparently arranged a credit with the Banco do Brasil for 300,000 contos (£5 million, on the basis of 60 milreis to the £) against the security of the export tax, or rather the 12s. of it which is not earmarked for the Realisation Loan service. Armed with this finance, the Council has undertaken to buy coffee up to any amount at the basic price of 15\$500 per 10 kilos for Santos Type 4, which was the official quotation in December. Coffee so purchased or coffee from

the interior stocks will be burnt at the rate of I million bags per month.

At the time of writing (Jan. 11th), the new scheme has so far had little or no effect on the gold price of coffee, for consuming interests are well supplied and buying seems to have come to a standstill. At present, therefore, prices in the New York and European markets are really below parity, and it is only reasonable to suppose that since the milreis price is to be maintained, quotations abroad must in due course rise by the equivalent of the extra 5s. export tax.

It seems clear that the Council now has the necessary finance to carry out even this colossal holocaust. The surplus interior stocks may be put at somewhere about 25 million bags, and the elimination of 12 million bags will only leave the stocks pledged against the Realisation Loan, which loan provides for their steady and gradual liquidation. This much more rapid solution of the problem of the accumulated stocks is clearly in itself a great advantage, though there was no reason to anticipate a break-down of the old scheme. But it must be remembered that this is not the really crucial problem, which is the excess of producing capacity, and from this point of view the new scheme clearly tends to hinder the forces making for readjustment. My general conclusion, in the section above, was that, at the existing price level in milreis, abandonment of capacity on the scale required would be an extremely lengthy and prolonged process, and it was therefore argued that the price would gradually decline to a considerably lower level. It is now virtually certain that the existing milreis price will be maintained throughout 1932. After that, the Banco do Brasil's credit being exhausted, the Coffee Council will not have funds to purchase more than about 7 million bags (i.e. it will only have the current proceeds of the 12s. of the export tax which is not earmarked for the Realisation Loan service). This is a considerable amount, but it would not suffice to meet another bumper crop on the scale of 1929, let alone anything greater. The crop which will be harvested next summer cannot be a bumper crop: it is most unlikely to exceed the volume of consumption. But the flowering of the 1933-34 crop, which will take place next August and September, will be an absolutely crucial event. If this promises a crop for all Brazil of less than, say, 22 million bags, it will be strong evidence that the effect of inter-planting and bad cultivation in reducing yielding power is greater than many people suppose, or that the extent of the 1927 and 1928 plantings, which are now reaching bearing age, has been exaggerated. If this is so, the argument that a large-scale abandonment of capacity is the only cure will be very much weakened, and Brazil may be said to be nearing the end of her troubles. If, on the other hand, the flowering promises a really big crop, the new scheme will have been largely a wasted and misguided effort, since

it will have delayed the fall in price which is required to reduce capacity. All this presupposes no intervention on the part of the weather. If at last God resumes his Brazilian nationality, his fellow-countrymen will now be able to take much greater advantage of his beneficent ministrations than if they were still encumbered with a vast accumulation of stocks.

APPENDIX

Some Relevant Statistics with Notes Thereon

TABLE I.

WORLD PRODUCTION (DISTINGUISHING BRAZIL AND OTHER COUNTRIES).

(Million bags.)

	Brazil.	Mild Countries.	World.
1905-06 1906-07 1907-08 1908-09 1909-10 1910-11 1911-12 1912-13 1913-14 1914-15 1915-16 1916-17 1917-18 1919-20 1920-21 1921-22 1922-23 1923-24 1924-25 1925-26 1926-27 1927-28 1928-29 1929-30 1930-31 1931-32	10·8 20·2 11·0 12·9 15·3 10·8 13·0 12·1 14·5 13·5 16·0 12·7 7·5 14·5 10·2 19·5 11·0 14·7 26·1 10·9 29·1 14·8 23·5*	3390334489057897980107365 4433448905789798077865	14-8 23-8 14-9 16-9 19-1 14-5 17-4 16-4 19-6 17-9 20-8 16-7 18-8 14-2 15-1 20-3 19-8 26-4 17-8 22-1 21-7 34-1 32-0

^{*} But some authorities forecast 2 million bags more.

Note.—These statistics are taken from the Medeiros Bulletin and represent exportable crops. As a measurement of production, exports are sufficiently accurate except from 1916 to 1918, when there was an appreciable carry-over, owing to shortage of shipping: these accumulations were shipped in 1919, and account for the high figure of that year. All authorities agree on the production of milds, which are simply the official export statistics of the countries concerned. All authorities are agreed upon the Brazilian figures down to and including 1922–23, for these are the official returns of receipts at Brazilian ports. Control of port entries, and retention of stocks in the interior, began with the 1923–24 crop, and this opens the way to various methods of computing the actual crop of each year. On the whole I prefer the estimates of the Medeiros Bulletin for reasons which need not be stated here in detail, since the well-known statistics of E. Laneuville do not differ appreciably, while the São Paulo Institute arrives at much the same figures by an entirely different method of computation. Statistics compiled by Messrs. Nortz, and those by Messrs. Duuring & Zoon, differ in certain years from the above and also from each other, but there is not much difference over any two or three years. On the other hand, a very different set of figures is given by the statistical department of the São Paulo Ministry of Agriculture, Industry and Commerce, and these figures have usually been given in Presidential messages and public speeches. The crop of 1923–24 is given as only 14-9 million bags as compared with the 19-5 million bags shown in the above table. The explanation, however, is obvious, as this lower figure is the same as the total receipts at the ports, and the appearance of an interior carry-over of 4-6 million bags in the above table. During the next two years no account is yet taken of the increasing carry-over, and therefore the figures are too low. With the bumper crop of 1927–28, however, the interior stocks beca

an estimate of total production, and not of exportable production, i.e. allowance is made for consumption in the interior of Brazil. Later figures agree with Medeiros, but from 1923–24 to 1927–28 these official figures must be considered as absolutely wrong and hopelessly misleading, though they have naturally obtained widespread publicity, e.g. in the last British D.O.T., Report on Brazil.

TABLE II.

WORLD STOCKS ON JULY 1st.

(Million bags.)

	Visible.	Brazil Interior.	Total.
1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931	6.7 8.7 8.6 5.3 5.0 5.0 4.7 5.7 5.3 5.6 6.4	None '', 4-6 1.9 2.8 3.3 13:1 10:3 23:7 19:5*†	6.7 8.6 5.3 9.6 6.9 7.3 8.0 18.8 15.6 29.3 25.9†

* Subject to correction

† The statistics for 1931 do not include the stocks held by the São Paulo Government under the Realisation Loan scheme. On July 1st, 1930, 3 million bags were arbitrarily deducted from the Brazilian Interior stock figures on this account, but there seems some doubt whether quite as much as this was ever bought. A further 2-3 million bags should, however, be added to the above figures in order to arrive at the true total.

Notes.—Visible Supply statistics are by Messrs. Duuring & Zoon, and include port stocks in Europe and the United States, aftest from Brazil to Europe and the United States, and stocks in Brazilian ports.

Statistics of the Interior Stocks in Brazil are those issued by the official Institutes of São Paulo and Rio.

TABLE III.

WORLD PRODUCTION, CONSUMPTION AND STOCKS.

(Million bags.)

	Production.	Consump- tion.	Apparent Change in Stocks— (Increase +, Decrease -).	Recorded Change in Stocks— (Increase +, Decrease —).
1920-21 1921-22 1922-23 1922-24 1923-24 1924-25 1925-26 1926-27 1927-28 1928-29 1929-30 1930-31	20·3 19·8 15·9 26·4 17·8 22·1 21·7 34·1 19·6 37·3 23·4	18·5 19·7 19·2 22·0 20·5 21·7 21·3 23·5 22·2 23·5	$\begin{array}{c} + \ 1.8 \\ + \ 0.1 \\ - \ 3.3 \\ + \ 4.4 \\ - \ 2.7 \\ + \ 0.4 \\ + \ 10.6 \\ - \ 2.6 \\ + \ 13.8 \\ - \ 1.7 \end{array}$	+ 2·0 - 0·1 - 3·3 + 4·3 - 2·7 + 0·4 + 0·7 + 10·8 - 13·7 - 0·9

Notes .- Production as in Table I.

Consumption should accurately be termed absorption, since no information is available regarding roasters' and other invisible stocks. The figures are by E. Laneuville, and are used by all authorities.

Changes in Recorded Stocks calculated from Table II. A further 2.5 million bags have been added to the figure for 1931 in Table II on account of stocks held by the São Paulo Government under the Realisation Loan scheme.

TABLE IV.

MONTHLY AND YEARLY AVERAGES OF SPOT PRICES FOR SANTOS GRADE 4 ON THE NEW YORK MARKET.

(Cents per pound.)

		ν.					· 82 ·			Jer.		er.	cr.	້ອ:		Σ early	Average.	
Year.	January.	February.	March.	April.	May.	June.	6 Months' Average.	July.	August.	September.	October.	November.	December.	6 Months' Average.		ndar ars.	Fiscal of Yea	
1907 1908 1909 1910 1911 1912 1913 1914 1915 1916 1917 1918 1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1927 1928 1929 1930 1931	8·27 8·02 9·16 13·86 15·43 12·05 9·98 9·31 10·89 10·61 21·69 25·75 9·53 12·26 15·53 16·00 28·25 24·03 19·58 22·1 9·7	9.91 12.52 15.94 18.34 27.56 24.08	10·19 9·95 10·91 21·25 24·30 9·48 13·38 15·56 20·18	9.50 14.64 14.94 19.40 24.47	7-65 8-61 9-09 9-31 15-92 13-31 10-74 10-68 23-13 24-19 9-13 22-68 14-70 12-26 22-38 17-15 23-6 23-8 13-8 8-7	19.02 24.78 22.78	8-54 8-77 9-21 13-24 15-80 11-90 9-91 10-20 10-83 22-56 24-44 9-51 13-64 9-51 18-68 25-68 23-10 18-02 22-93 24-17 14-1 8-7	7-39 8-71 9-06 9-61 13-77 16-08 11-79 11-94 9-50 10-67 10-15 11-43 28-60 19-91 9-42 14-54 13-58 20-61 23-75 22-81 16-88 23-8 13-1 9-0	8-00 8-31 8-76 10-09 13-91 15-61 12-00 19-39 10-89 10-89 11-47 29-56 15-83 14-51 13-88 21-63 21-63 22-50 16-98 22-2 11-5 8-0	13.84 11.50 15.06 14.31 22.81 23.97 22.13	8-05 8-16 8-81 11-84 16-21 16-73 11-03 11-03 11-03 11-03 12-00 11-88 15-10 14-75 24-91 23-09 20-63 20-65 23-5 19-8 13-2 7-6	7·72 8·03 8·79 12·74 16·47 16·47 12·89 10·00 9·35 10·75 26·50 10·98 12·13 27·03 23·56 20·75 22·13 23·16 7·8	7-85 7-56 8-91 13-86 15-92 16-04 12-13 10-03 9-31 10-48 9-47 22-25 25-33 11-29 15-25 26-68 22-75 20-13 21-66 23-2 10-5	7-84 8-15 8-84 11-59 15-14 16-19 12-40 11-03 9-81 14-58 27-01 13-75 11-25 11-25 14-48 23-95 23-41 21-49 19-34 23-50 12-0	1907 1908 1909 1910 1911 1912 1913 1914 1915 1916 1917 1918 1920 1921 1923 1924 1925 1926 1927 1929 1930 1931	8.34 8.80 10.40 14.18 16.00 13.17 11.46 9.57 10.55 10.16 12.71 24.78 19.09 10.38 14.30 14.84 21.31 24.55 22.30 18.68 23.2 22.0 13.0	1906-07 1907-08 1908-09 1909-10 1910-11 1911-12 1912-13 1913-14 1914-15 1916-17 1917-18 1918-19 1919-20 1920-21 1921-22 1922-23 1923-24 1924-25 1925-26 1926-27 1927-28 1928-30 1928-30	8·19 8·46 9·02 12·41 15·47 15·06 12·15 10·47 9·72 10·69 10·32 18·57 11·63 12·44 15·08 16·58 24·81 12·26 19·76 21·15 23·26 19·76 21·15 23·84 17·0 10·4

Note.—Source: New York Journal of Commerce and U.S. Bureau of Foreign and Domestic Commerce down to September 1929: since that date the figures have been calculated approximately from Messrs. Nortz & Company's circulars.

TABLE V.

MILREIS EXCHANGE ON LONDON.

Averages of Daily Rates as given by the Bulletins of the London and Cambridge Economic Service.

(Pence per Milreis.)

	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.
January February March April May June July August September November December	17·80 18·37 17·57 16·51 16·59 15·13 14·26 13·81 12·61 12·29 13·58 10·61	9-90 9-93 9-56 8-63 8-42 7-77 7-17 8-07 8-34 8-52 7-88 7-60	7·37 7·49 7·72 7·63 7·58 7·42 7·47 7·32 6·78 6·18 6·47 6·32	5.90 5.88 5.79 5.54 5.42 5.46 5.15 5.18 5.06 4.84 5.18	6·10 6·68 6·42 6·22 6·09 5·99 5·48 5·31 5·45 6·02 6·00 5·91	5.91 5.68 5.56 5.33 5.13 5.41 5.62 6.03 6.71 7.44 7.28 7.05	7·36 7·32 7·16 6·94 7·31 7·78 7·68 7·59 7·51 6·92 6·40 5·87	5.80 5.87 5.87 5.83 5.80 5.84 5.83 5.87 5.87 5.91	5.92 5.93 5.92 5.92 5.92 5.89 5.90 5.91 5.91 5.92 5.89	5.91 5.90 5.86 5.87 5.87 5.87 5.88 5.88 5.80 5.56	5.52 5.55 5.72 5.81 5.86 5.63 5.34 4.87 4.98 4.85 4.73	4·45 4·24 3·87 3·62 3·33 3·71 3·58 3·16 3·05*

^{*} Average to September 19th; Great Britain then abandoned the Gold Standard.

TABLE VI.

MONTHLY AVERAGES OF THE OFFICIAL DAILY QUOTATION OF THE GRADE 4 OPTION ON THE SANTOS TERMINAL MARKET.

(Per 10 Kilos.)

	1925.	1926.	1927.	1928.	1929.	1930.	1931.
January February March Ap?il May June July August September October November December	42 8500 41 8250 41 8000 38 8750 37 8750 37 8500 37 8250 32 8220 30 8000 27 8000 26 8850 27 \$150	27 \$750 27 \$500 27 \$500 26 \$500 26 \$500 25 \$100 24 \$450 24 \$650 24 \$60 24 \$400 26 \$750 28 \$350	27 \$700 26 \$250 25 \$900 25 \$900 24 \$700 23 \$850 23 \$850 24 \$250 25 \$350 28 \$500 31 \$000 31 \$000	32,8000 33,8000 33,8000 33,8000 33,8250 33,8500 33,8500 33,8500 33,8500 33,8500 33,8500 33,8500 33,8500	33 \$500 33 \$500 33 \$500 33 \$500 33 \$500 33 \$500 33 \$500 33 \$500 33 \$500 33 \$500 Nominal 20 \$750	21 \$000 21 \$100 21 \$000 21 \$000 18 \$000 18 \$500 17 \$500 20 \$000 19 \$600 16 \$600 15 \$500	16 \$250 16 \$000 18 \$000 18 \$000 17 \$500 16 \$500 15 \$300 15 \$600 15 \$400 15 \$400 15 \$563

TABLE VII.

APPROXIMATE SPOT PRICES OF COLOMBIAN COFFEE, MANIZALES EXCELSO, AND SANTOS GRADE 4 ON THE NEW YORK MARKET.

	Manizales Excelso. (cents per lb.)	Santos 4 (cents per lb.)
July 1st, 1924	26.00 27.50 29.50 24.25 27.50 23.50 16.50	20·60 23·75 22·80 16·90 23·80 22·50 13·10 9·00

NOTE.—This table is included in order to show the general magnitude of the changes in the premium obtainable for Mild over Brazilian coffees.

TABLE VIII.

NUMBER OF TREES, PRODUCTION AND AVERAGE YIELD PER 1000 TREES IN THE STATE OF SÃO PAULO.

	Number of Trees in Bearing. (Millions.)	Production. (Million bags.)	Average Yield per 1000 Trees. (Arrobas, i.e. 15 kilos.)
1906-07	696-7	15-4	88
1914-15 1915-16 1916-17 1917-18 1918-19 1919-20 1920-21 1921-22 1922-23 1923-24 1924-25 1925-26 1926-27 1927-28 1928-29 1929-30 1930-31 1931-32 estimated	735.4 755.4 791.3 834.2 828.4 826.6 843.6 871.9 899.2 949.1 951.3 966.1 1.047.5 1.123.2 1.152.5 1.188.1	9·2 11·7 9·9 12·2 7·3 4·1 10·2 8·2 7·0 14·9 6·1 10·1 9·9 17·3 6·8 19·5 8·5 16·0	50 64 50 58 35 20 48 31 63 26 42 38 62 24 66 — 50

Notes.—1. This table is taken from publications of the São Paulo Department of Agriculture down to the year 1923-24. Since that year the official statistics of production in São Paulo are undoubtedly wrong, for the reasons given in the notes to Table I above. The statistics given by the Medeiros Bulletin have therefore been substituted, and the average yield recalculated accordingly.

2. The statistics of the number of trees in bearing are obtained from returns compulsorily made by the planters to each municipality for the purpose of municipal taxation. Obviously the planters would tend to under-estimate the number of their trees, knowing that the return was to be used for taxation purposes, and it is, of course, physically impossible for the municipal inspectors to make anything more than the roughest check. With the advent of the defence scheme, however, the planters had to send estimates of their crops to the Institute in order that they might be allotted their proper share of railway wagons, and since the more wagons a planter could get, the earlier he could despatch his crop to the reguladores, and therefore the earlier it would be released, the planters overestimated their crops as much as they dared. Unfortunately for them, the Institute went to the trouble of dividing these estimates by the number of trees which each planter had returned to the municipal authorities, and then compared the resulting rates of yield with the estimates of their own officials as to the expected yield in the various districts. In general, the calculated yields were far higher than the Institute's own estimates, fantastically so in many cases. Since experts, such as the Institute employed, can estimate current yields within a comparatively small margin of error, the planter found himself in an awkward position. He could rarely make out a tenable case that the yield of his trees was as high as the figure calculated from his crop estimate divided by the number of trees which he had returned to the municipality, and so he could only say his estimate was wrong and accept a revision. But in making his municipal returns the next year he took care to show at least the correct number of his trees: many of them would doubtless have liked to show more than the correct number, but the increase, when the true figure was shown, was such that to make it still higher would have been to court investigation. In 1927 a partial census was made in São Paulo, and by this and various checkings of individual plantations there seems little doubt that the Institute has effected a great improvement in the accuracy of the statistics, and the figures for earlier years have been adjusted in the light of this improved knowledge. But of course there still remains a large margin of error: accuracy could only be obtained by a thorough census, preceded by a detailed land survey such as has never yet been undertaken. The general opinion of careful and cautious men in Brazil is that the maximum margin of error in these statistics is 10 per cent., at any rate for the period since 1926, and the probable error might be put at 5 per cent. These margins may seem large, but it must be realised that they apply to the whole range of figures and not to any one particular year: hence the sort of conclusions which have been drawn from these figures in this Memorandum will not be greatly disturbed if such degrees of error are admitted. In particular, it may be observed that the calculations as to new planting in the period 1920-26, of which the results are given on p. 32, rest on the increase in the number of trees in bearing from 1926 to 1931. as shown in the above table, and in this period these figures may be considered more reliable than those for earlier years. If anything, the error is now on the high side, whereas in the earlier period it was on the low side, and therefore the computations of new planting may perhaps show an even greater amount than actually took place. The trees planted from 1927 onwards are not, of course, reflected in the 1300 million trees in bearing at the present time: the rate of planting from 1927 onwards still remains purely a matter of estimate and guess-

TABLE IX.

COSTS OF PRODUCTION IN SÃO PAULO.

Statistics of the costs of production of three representative fazendas in São Paulo, as compiled by Dr. J. C. Muniz, are here reproduced in full. These are the statistics to which reference is made in Section II B and elsewhere.

OLD ZONE. FAZENDA "A."		Fourth part—Capital Invested.	
410,000 coffee trees. Annual average yield per 100 37 arrobas. Age of the plantations: 30, 40 and 60 yea of production of 37 arrobas of hulled coffee.	00 trees: rs. Cost	Capital invested in the property, including lands plantations, machinery and improvements, figured a per tree:	
		 (a) Interest on the capital invested (10% p.a.) (b) Interest on the capital invested in the upkeeping of the estate (12% in 16 months) up to the date 	400 \$000
First part—LABOUR.		of sale of the coffee in Santos	141 \$885
(a) Treatment of the trees (b) Picking (3\$000 per arroba)	300 \$000 111 \$000	Total cost of production of 37 arrobas of coffee, including interest	582 \$419
(c) Transportation to the drying ground (\$180 per arroba)	68660	Total cost of production of 1 arroba of coffee, includ- ing interest	42 8768
(d) Drying (\$360 per arroba)	13 \$320 7 \$400	Total cost of production of 10 kilos of coffee, including interest	28 8510
for each exceeding group of 100,000 trees. 26 working days in a month at 68000 a day)	65 \$520	INTERMEDIARY ZONE. FAZENDA "B."	
(g) Pruning (52 reis per tree)	52 \$000	270,000 coffee trees. Annual average yield per 100	0 trees:
spreading of the pest—at \$160 per tree)	160 \$000	55 arrobas. Age of the plantations: 30 and 40 years. production of 55 arrobas of hulled coffee per 1000 tree	Cost of
생기 사람이 가장이 그 그 말이 되어 다.	715 8900		
		First part—LABOUR,	
Second part—MATERIAL.		(a) Treatment of the trees (b) Picking (18920 per arroba)	500 \$000 105 \$600
(a) Bags for picking and for bagging hulled coffee (b) Tools, etc.	24 \$309 15 \$000	arroba) (d) Cost of drying (\$320 per arroba)	8 \$800 17 \$600
(c) Manuring (250 per tree every four years, including the cost of manure)	62 \$500	(e) Cost of hulling (\$400 per arroba)	22 \$000
	1018809	for each succeeding group of 100,000 trees) (y) Cost of pruning (\$050 per tree)	68 \$640 50 \$000
			772 \$640
Third part—OTHER COSTS.			
		Second part—Material.	
(a) Administration (wage of the "administrador" and his assistant	40\$975	 (a) Bags for picking and for bagging hulled coffee (b) Tools, etc. (c) Cost of manuring (\$400 per tree every four years. 	36\$135 12\$000
arroba)	11 \$100 42 \$550	including the cost of manure)	1008000
(d) Municipal tax (2\$000 per 1000 trees)	2 \$000 22 \$200	항상 아이들의 사람들은 사람들은 사람들이 되었다.	148.8135
(f) Commission for the "commissario" (3% on 40\$000)	44 \$400	Third part—OTHER Costs.	
(g) Cartage and cost of bagging (\$800 per arroba) (h) Reserves for replanting the coffee plantations (\$500	29 \$600	(a) Administration (10,200,5000 per annum)	37 \$000 11 \$000
per young tree and 3% for annual replanting or	75,000	(c) Gold tax (48600 per bag)	63 \$250 2 \$000
the total renewal of the plantation in 33.3 years) (i) Depreciation of machinery and improvements (3% on the value of machinery and improvements	15\$000	(e) Freight to Santos (10\$000 per bag)	137 \$500
figured at the rate of \$500 per tree)	15\$000	40\$000)	66 \$000 44 \$000
4 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	222 \$825	(h) Reserves for replanting the coffee plantations (\$500 per young tree and 3% for annual re-	77,000
Cost of production of 37 arrobas of coffee, without	1.040.050.5	planting or the total renewal of the plantation in 33.3 years)	15 \$000
interest Cost of production of 1 arroba of coffee, without		(i) Depreciation on machinery and improvements (3% on the value of the machinery and improve-	15 0000
interest Cost of production of 10 kilos of coffee, without interest	28 \$122 18 \$740	ments figured at the rate of 500 per tree)	15\$000
Upkeeping of the estate (\$886 per tree)	886\$784		3908750

Cost of production of 55 arrobas of coffee, without	Fourth part—Capital Invested.
interest 1,3118525 Cost of production of 1 arroba of coffee, without interest 238846	Capital invested in the estate including lands, coffee plants
Cost of production of 10 kilos of coffee, without interest 158890 Upkeeping of the estate (\$985 per tree) 9858775	tions, machinery and improvements, figured at 63000 per tree: (a) Interest on the capital invested (10%)
	the date of the sale of coffee in Santos) 177\$127
Fourth part—Capital Invested. Capital invested on the estate, including lands, coffee plantations, machinery and improvements, figured at the rate of 58000	Total cost of production of 70 arrobas of coffee, including interest
per tree: (a) Interest on the capital invested (10%) (b) Interest on the money invested in the upkeeping (12%) p.a. on 16 months, up to the date of sale	interest
of the coffee in Santos)	
interest	
interest 358804 Cost of production of 10 kilos of coffee, including interest 238860	TABLE X.
20000	DISTRIBUTION OF PLANTATIONS IN SÃO PAULO ACCORDING TO SIZE IN 1927.
NEW ZONE. FAZENDA "C." 470,000 coffee trees. Annual average yield per 1000 trees:	(Statistics published by the Institute.)
70 arrobas. Age of the plantations: 4, 15 and 20 years. Cost of production of 70 arrobas of hulled coffee.	Number of Total Number of Tres Estates. of Tres
First part—Labour.	Estates. of Trees (millions).
(a) Treatment of the trees 5508000 (b) Cost of picking (28560 per arroba) 1798200 (c) Transportation to the drying ground (8240 per arroba) 168800	900,000 up to 1 million trees 12 11.4
(d) Cost of drying (\$115 per arroba) 88050 (e) Cost of hulling (\$133 per arroba) 98310 (f) Labourers (5 men for the first 100,000 trees and 3	700,000 up to 800,000 trees 16 12.0 600,000 up to 700,000 trees 27 17.5 500,000 up to 600,000 trees 37 20.3
for each exceeding group of 100,000 trees) 61 8648 (g) Cost of pruning	400,000 up to 500,000 trees 73 32.8
<u>875 8008</u>	100,000 up to 200,000 trees 1,615 242.2 50,000 up to 100,000 trees 2,390 179.2
Second part—MATERIAL. (a) Bags for picking and for bagging hulled coffee 458990	20,000 up to 50,000 trees 5,659 198-0 10,000 up to 20,000 trees 7,489 112-3 5,000 up to 10,000 trees 8,189 61-4
(b) Tools, limestone, wire, etc	Under 5,000 trees
including the cost of manure)	
Third part—OTHER COSTS.	하고 있는 그 작년을 된 것은 하는 것들까?
(a) Administration (including wages for the "administrator" book-keeper, fiscals and bonus for the administration) 668400	TABLE XI.
(b) Transportation to the railway station (\$200 per arroba)	PRODUCTION OF STATES OTHER THAN SÃO PAULO.
(d) Freight to Santos (2\$400 per arroba)	(Million bags.)
(f) Cartage and cost of bagging (\$800 per arroba) 56\$000 (g) Municipal tax (2\$000 per 1,000 trees) 2\$000 (h) Reserves for replanting (\$500 per young tree and 2% for annual replanting or the total renewal	1920-21 4-3 1921-22 4-7 1922-23 3-2
of the plantation in 50 years)	9 1923-24 4.6 1924-25 4.7 1925-26 5.0
495.8900	. 1927–28
Cost of production of 70 arrobas of coffee, without interest	[2] - 10.11 [2] - 10.11 [2] - 10.11 [2] - 10.11 [2] - 10.11 [2] - 10.11 [2] - 10.11 [2] - 10.11 [2] - 10.11
interest 21\$565 Cost of production of 10 kilos of coffee, without interest 14\$370 Upkeeping of the estate (1\$107 per tree) 1,107\$048	(현존: 선생님, 회사, 보고 보고 있습니다. 네트리트 (현금 이 그리고

TABLE XII.

ANNUAL EXPORTS OF COFFEE FROM BRAZIL, AVERAGE PRICES, AND EXCHANGE RATE.

(Statistics of Federal Ministry of Finance.)

	Coffee Exports.	Price per Bag.	Exchange on London.	Price per Bag.	Spot Santos, New York,*
	Million bags.	Milreis.	Pence.	£ s.	Cents per lb.
1920	11·5 12·4 12·7 14·5 14·2 13·5 15·1 13·9 14·3 15·3	75 82 119 147 206 215 172 170 205 192	1484 849 715 584 615 784 514 518	4 11 2 16 3 0 3 5 5 1 5 10 5 1 4 3 6 0 4 14	19 10 14 15 21 24·5 22 19 23 22 13

^{*} This column has been added from Table IV above.

TABLE XIII.

BRAZIL'S FOREIGN TRADE.

(Converted into £ million.)

Water to the same			CONTRACTOR OF THE PARTY OF THE	
	Exports of	Total	Total	Surplus of
	Coffee.	Exports.	Imports.	Exports
1920	52·8	107·5	125.0	- 17·5
1921	34·7	58·6	60.5	- 1·9
1922	44·2	68·6	48.6	20·0
1923	47·1	73·2	50.5	22·7
1924	71·8	95·1	68.3	26·8
1925	74·0	102·9	84.4	18·4
1926	69·6	94·2	80.0	14·4
1927	62·7	88·7	79.6	9·1
1928	69·7	97·4	90.7	6·7
1929	67·3	94·8	86.6	8·2
1930	41·2	65·7	53.6	12·1
	-			

See also Table on p. 62.

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- No. 20. Report on Current Economic Conditions in Europe. February, 1930.
- No. 21. Report on Current Economic Conditions. April, 1930.
- No. 22. Report on Current Economic Conditions. July, 1930.
- No. 23. Studies in the Artificial Control of Raw Material Supplies, No. 1. Sugar, by J. W. F. Rowe. October, 1930.
- No. 24. Stocks of Staple Commodities, by J. M. Keynes, J. W. F. Rowe and G. L. Schwartz. October, 1930.
- No. 25. Report on Current Economic Conditions. October, 1930.
- No. 26. Report on Current Economic Conditions. January, 1931.
- No. 27. REPORT ON CURRENT ECONOMIC CONDITIONS IN EUROPE. February, 1931.
- No. 28. A New Index of Prices of Securities, by A. L. Bowley, G. L. Schwartz and K. C. Smith. February, 1931.
- No. 29. Studies in the Artificial Control of Raw Material Supplies, No. 2. Rubber, by J. W. F. Rowe. April, 1931.
- No. 30. REPORT ON CURRENT ECONOMIC CONDITIONS. April, 1931.
- No. 31. Report on Current Economic Conditions. July, 1931.
- No. 32. Report on Current Economic Conditions. October, 1931.
- No. 33. Report on Current Economic Conditions. January, 1932.

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MEMORANDUM No. 35

REPORT ON CURRENT ECONOMIC CONDITIONS IN EUROPE

February, 1932

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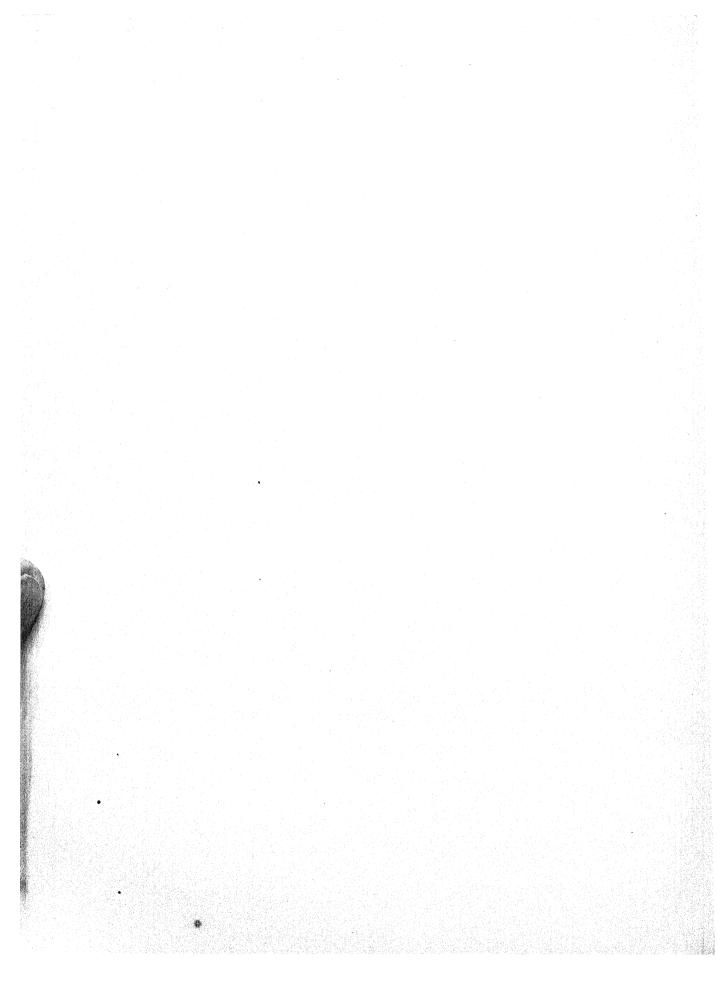


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UNITED KINGDOM.

Additional Figures published since Jan. 22nd, 1932

Stocks and Shares.		End Dec.	End Jan.	Prices.
Fixed Interest—Pri ,, ,, —Yie Industrials Sensitive Index		91% 110% 80% Dec.	93% 108% 81% Jan.	Silver (bar)—cash per oz. 19 2d. Week ending Jan. 30th "Times" Index (Wholesale). Dec. 31st Jan. 30th Food 108 1% 107 6%
lst half-month 2nd ,, ,,		+0.6% -2.6%	+3·1% -2·2%	Materials 94.6% 93.9% Total 99.5% 98.9% Railways.
New Capital Issues. For Great Britain For Abroad				Weight carried— Nov. 1931 Merchandise (A) Tons 4,452,900 Fuel 14,593,000 Minerals and Merchandise (B) 3,943,000 Goods Receipts £7,530,000
Provincial Clearings. As in Bulletin Nine Clearing Banks.	•••		January £95,800,000 December £Mn.	Exchanges. Week ending Paris Milan Berlin Amsterdam Jan. 23rd 87'80 68'00 14'61 8'59 ,, 30th 87'87 68'99 14'64 8'59
Deposits Discounts Advances Investments			244	Prague Zurich Stockholm New York Jan. 23rd 116·58 17·72 17·88 3·456 ,, 30th 116·69 17·72 17·88 3·457 B.Aires RiodeJ. Bombay H. Kong Kobe Jan. 23rd 39·59 4·25 18·12 17·15 25·73
Money.			Week ending	,, 30th 40·04 4·25 18·11 17·21 24·93
Short Money Index Day to Day Rate Three Months Rate Bank Rate		3 71 9 5 20 9	6 ,,	Unemployment. Numbers on the Live Register, together with Part-time Workers not actually employed on the dates mentioned. Weekly Series discontinued by Ministry of Labour.

FRANCE.

Information communicated by M. LUCIEN MARCH, Directeur Honoraire de la Statistique Générale de la France.

January 25th, 1932.

in France became more serious, far exceeding its intensity in 1926-7, bankruptcies multiplied, and large undertakings

whose administration had been unsound THE past year was more disastrous have been swept away. The end of than the preceding. Unemployment the year was marked by extremely low levels of prices of raw materials and of ordinary shares.

The business position is being

110

	sı	OCKS	& SH	ARES		rns.	EXCHA	NGE	В.	ANK O	F FRA	NCE.			who	LESA	LE.		RET	LIL
	Index	Nos. o		s of	senes.	se Returns	Mont		tion.	Curre Sum of and Ci						In	dex N for		Pa	Nos. ris)
	% 3 % Rentes.	% 3% Railway Debentures.	2 10 Netal Shares	% 5 Financial Shares.	T. New Capital Issues	HOUSE Clearing House	to Sterling.	毎5~ Dollar.	ur Note Circulation	o Paris.	% Provinces.	H F Private Deposits	% Discount Rate	po per kilo 000 f	per kilo f	% 45 items.	% Food only.	% Raw Materials.	o 13 items.	% Cost of Living.
re-War. 904-13.		97.0	114	117	184	12	25.2	5.17	50	100	100	647	3.2	3.44	99	100	100		100	10
1925 st Qr. Av ad ,, ,, ad ,, ,,	49·3 45·8 46·6 46·1	48.8 49.3 52.3 47.2	119 107 117 107	155 142 153 153	1907- 1913. 295 464 209 358	259 291 262 428	90·4 96·2 103·3 120·5	18:9 19:9 21:3 24:8	408 430 450 481	574 595 580 837	971 971 1002 1177	1983 1989 2321 2665	7 6 ,,	13·13 13·43 14·43 17·08	433 446 506 583	513 523 555 601	ar 19 463 478 499 509	557 565 604 678	July, 1914 411 416 425 447	1st (191 38 39 40 42
1926 st Qr.Av ad ,, ,, cd ,, ,, th ,, ,,	47.4	50·0 48·8 48·7 53·7	113 114 148 155	179 172 243 225	327 649 237 433	409 476 481 461		27·2 31·9 37·1 29·5	513 527 554 540	794 897 881 938	1170 1314 1425 1527	2898 2742 3176 3991		18·77 22·70 25·53 19·59	616 735 802 575	631 690 795 684	545 613 708 658	707 757 872 713	491 523 584 617	45 48 53 54
t Qr.Av d ,, ,, d ,, ,, th ,, ,,	59·4 58·8	61·3 69·0 68·1 68·8	145 170 161 153	236 273 273 263	439 791 413 862	284 256 227 258	124·0 124·0	25.5 25.5 25.52 25.44		695 805 650 793	1270 1315 1143 1337	4911 8542 11808 10622	5·5 5·0	16·78 16·98 17·11 17·48	498 505 492 508	629 627 610 593	629 627 579 545	635 632 642 637	586 583 543 514	52 52 50 49
st Qr.Av nd ,, ,, rd ,, ,, th ,, ,,	72·7 69·1	72·4 76·0 80·4 80·1	195 266 278 349	319 481 473 480	772 777 726 1309	276 366 364 375	124·06 124·19	25.40 25.57	596 608	839 1219 816 941	1297 1409 1487 1545	8754 7953 7 229 9997	3.5	17·08 16·98 17·01 17·08	505 518 505 510	611 625 618 620	582 612 600 600	639 641 639 641	525 545 544 582	50 51 51 53
JAN FEB MAR APRIL MAY JUNE.	73·4 73·4	78·0 76·7 74·9 75·4 78·8 78·4	413 420 417 406 397 396	546 480 433 425	1092 1406 1475 1113	406 403	124·2 124·2 124·2 124·1	25.60 25.60 25.59 25.59	626 629 633 634	969 994 917 933 821 897	1466 1444 1463 1516 1520 1562	11864 12113 12099 11921 12675 12220	71 71 71 71 71	17.08 17.08 17.08 17.08 17.08 17.08	505 485 495 490 480 465	628 636 637 625 621 609	611 623 622 622 620 620	647 651 655 632 628 618	599 602 607 615 626 624	}54 }5!
JULY . AUG SEPT OCT NOV DEC	76.2 80.2 80.9 81.3	78·7 78·1 78·4 79·9 80·0 83·2	416 410 440 407 379 359	410	621 921 2293 1429	494 464 426 480 411 427	123.85 123.85 123.85 123.86	25·55 7 25·55 7 25·44 6 25·39	650 655 669 666	895 761 864 954 905 984	1513 1473 1497 1558 1755 1644	11699 12099 11865 11934 12487 11446	91 93 93 93 93 93 93	17·08 17·08 17·08 17·08 17·08 17·08	465 465 460 445 435 435	611 595 596 588 582 574	608 570 576 570 566 557	618 620 617 608 598 592	606 602 612 618 614	}5! }5!
JAN FEB MAR APRIL MAY JUNE.	89·9 89·6 91·3 89·5	88:3 87:7 83:8 86:5 86:3 87:6	405 379 378 401 382 331	422 392 391 406 391 355	1313 3261 2354 872 1210 2601	458 438 460 476 511 511	124·1′ 124·2′ 124·1′ 123·9′	7 25·54 7 25·55 2 25·52 0 25·49	691 700 712 711	904 908 952 914 1074 1029	1550 1509 1462 1502 1500 1512	10126 10669 10606 9467 10150 10215	,,	17.08 17.08 17.08 17.08 17.08 17.08	410 395 375 380 370 305	561 562 551 546 540 531	536 540 534 534 533 528	587 585 570 561 549 537	609 598 591 586 590 593	}50 }50
JULY AUG SEPT OCT NOV DEC	. 90·5 . 91·5 . 90·4	89·9 91·6 90·1 88·9 87·9 87·1	351 322 328 286 286 261	365 348 349 322 316 307	980 887 1351 3650 1134 2311	380	123.83	3 25·46 5 25·46 5 25·46	727 729 740 747	947 754 816 925 822 908		10856 12546 12555 14078 15785 17122	11 11 11 11 11	17:08 17:08 17:08 17:08 17:08 17:08	305 310 325 320 315 290	536 530 522 507 492 485	553 553 548 536 526 535	527 516 506 488 468 449	601 626 637 637 647 649	}5! }5!
1931 JAN FEB MAR APR MAY JUNE .	. 90·1 . 90·7 . 91·3 . 91·0	86.8 88.7 88.9 89.5 89.4 91.3	227 255 240 231 191 158	267 310 300 287 277 254	484 4228 1304 1163 1457 1619	394 411 441 430	123·83 123·98 124·13 124·29 124·38 124·24	5 25·51 3 25·55 9 25·57 5 25·57	772 778 787 773	813 830 826 820 828 860	1414 1260 1480 1373	18434 19733 20122 19510 20217 21368	2	17.08 17.08 17.08 17.08 17.08	260 240 240 255 255 245	482 480 480 483 468 466	543 540 548 559 545 539	437 437 429 425 410 410	649 650 647 641 634 632	} ₅
JULY AUG SEPT OCT NOV DEC	90·2 91·3 85·5 86·6	91·5 93·1 91·0 85·6 87·1 84·6	168 171 154 129 132 105	249 257 236 171 184 152	1002 351 341 3545 631 313	419 324	123·89 123·93 115·42 99·07	25·50 25·51	782 784 782 818 823	877 889 1096 1012 1064	brio.	19616 25086 26184 26808 28823 29340	,, ,, 2.,	17·08	255 250 255 270 320 270	455 444 426 413 407 403	526 512 492 469 465 472	371 363	555)
1932 JAN		82.9	138	180		į.		25.53	file d			27124	••	! "	275					\ 5

†Provisional.

; Including Sinking Fund.

FIRANCE.

Value of Stocks and Shares
Clearing House Returns.—
Exchanges.—
Bank of France.—
PRICES.

Wholesale.—
Stocks and Shares

Index numbers for 15th of month.
Total clearings during the month at the Bankers' Clearing House of Paris.
Monthly average of daily rates in Paris.
Middle of month, except Debits and Credits, which are based upon daily averages.

Wholesale.—
Index calculated by the Statistique Générale de la France for 45 commodities at the Index for Paris calculated (1) for 13 commodities by the Statistique Générale duri

Index calculated by the Statistique Générale de la France for 45 commodities at the end of the month. Index for Paris calculated (I) for 13 commodities by the Statistique Générale during the month, giving each commodity a weight corresponding to the consumption of a family of four persons; (2) for all expenses of a working-class home according to the Paris Commission on the Cost of Living.

TRADE, OUTPUT, TRANSPORT & EMPLOYMENT.

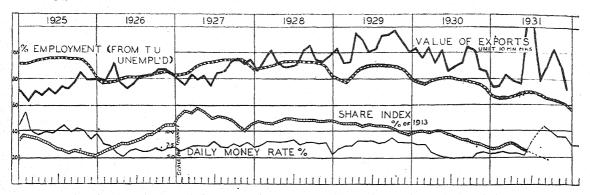
		IMPO	RTS.*			EXPO	RTS.*				(UTPUT	г.	SE	IIPPIN	G.	RAIL	WAYS	EM	P'T
	Total.	Food.	Raw Materials.	Manufactures.	Total.	Food.	Raw Materials.	Manufactures.	Wei	ght f Ex- ports.	Coal (excl. Saar).	Pig Iron,	Steel.	Tonns Ships Carg Carg	Cleared.	INLAND TRANS- PORT BY WATER.	Average weekly Receipts of chief Railways.	Av. daily No. of Trucks Loaded.		work
	Mn.f.	Mn.f.	Mn.f.	Mn.f.	Mn.f.	Mn.f.	Mn.f.	Mn.f.	Mn.Me	tr.Tns.	000	Metric T	ons.	Mn. Tons	Mn. Tons	Mn. Tons	Mn.f.	000.	×.	- %
re-War 904-13). 1925 t Qr.Av	541 3275 3004 3549	105 593 605 956	333 2246 1970 2176	103 436 429 417	474 3640 3568 3531	291 260 271	135 1012 952 986	274 2334 2357 2274	2·89 3·81 3·74 4·06	1·24 2·63 2·44	3346 3957 3796	540 665 698	374 595 594	2·24 3·23 3·87	1·71 2·60 3·23	9·02 Qrly. Total 8·5 9·6	160 164	54·4 51·4	185 242	113 143
l ,, ,, 1 ,, ,, 1926 Qr.Av d ,, ,,	4941 4864 4959	884 877 863 1062	3429 3444 3339 3216	520 620 662 681	4399 4413 4496 5328	387 371 362 433	1238 1263 1251 1416	2774 2779 2882 3479	3·91 3·89 3·71	2·47 2·55 2·65 2·66 2·79	3870 4060 4213 4109 4292	718 742 747 776 797	625 658 672 681 709	3·85 3·71 3·35 3·77 3·75	3·41 3·04 2·77 3·26 3·30	9·8 9·3 8·4 10·2 10·3	183 183 190 210 253	52·4 57·1 56·4 55·0 54·2	239 313 361	188 156 136 188 222
1927 Qr.Av	5074 4424 4615 3804 4775	1057 1255 1189 1072 1109	3457 2730 2903 2279 3152	561 439 523 452 513	5609 4667 4318 4444 4980	525 399 409 406 580	1627 1460 1342 1293 1499	3457 2808 2566 2745 2901	3·66 4·40 4·28 3.83 3·94	2·72 2·98 3·13 3·23 3·34	4527 4538 4276 4209 4238	774 772 768 784	732 668 688 688 713	3·84 3·67 4·34 4·23 4·11	3·26 2·92 3·73 3·73 3·60	9·4 10·8 10·8 10·9	258 212 230 242 238	56.0 51.7 51.5 50.1 55.5	37 48 87 84	99 19 26 54 45
1928' Qr.Av d',, ,, l',, ,, 1929	4323 4452 4147 4893	962 915 1035 1271	2800 2905 2445 2847	561 632 667 776	4253 4163 4101 4599	531 523 448 578	1119 1035 1046 1159	2602 2605 2607 2863	3·75 4·21 4·10 4·27	3·30 3·43 3·65 3·31	4328 4196 4237 4361	817 849 842 863	764 776 767 821	3·79 4· 5 2 4· 6 7 4·48	3·37 4·10 4·00 3·99	10·5 12·1 12·9 12·6	225 256 276 271	54·4 52·6 53·0 56·6	78 188 328 243	42 101 198 132
AN EB IAR PRIL . IAY UNE	5173 5162 4934 5144 5062 5165	1198 1169 1154 1174 1157 1159	3260 3243 3030 3109 3103 3101	715 750 750 861 801 906	3702 4118 4180 4419 3959 4350	465 466 490 582 462 547	1035 1060 1028 1137 1019 1077	2202 2592 2662 2720 2478 2726	4·32 4·29 4·69 5·07 4·92 5·32	3·01 3·27 3·11 3·33 3·09 3.62	4425 4094 4562 4457 4337 4432	904 781 880 871 897 865	838 742 804 810 820 795	4·14 3·68 4·81 4·95 5·21 5·03	3·53 3·24 4·03 4·28 4·38 4·43	8·49 }14·33	272 271	50·7 51·9 56·0 57·1 53·7 55·6	230 203 266 299 329 338	10° 10° 15° 16° 18° 19°
ULY UG EPT OV EC	4627 4340 4353 4516 4789 5020	1102 1057 929 1001 1084 996	2682 2470 2579 2660 2810 3114	843 813 845 855 895 910	4269 3804 4221 4386 4268 4396	507 417 465 553 563 571	1031 1012 1090 1063 1034 978	2731 2375 2666 2770 2671 2847	5·06 5·12 5·15 5·04 5·17 5·29	3·74 3·21 3·61 3·22 3·31 3·48	4736 4568 4299 4858 4603 4363	878 893 851 894 852 879	811 827 763 847 786 813	5·13 5·38 5·05 5·27 4·89 4·56	4·21 4·58 4·28 4·40 4·19 3·65	}13:93	304 293	53·4 53·4 56·3 59·3 58·4 56·7	376 363 378 260 243 240	20 21 26 17 13 12
1930 AN EB AR PRIL. AY UNE	4778 4808 4431 4566 4103 4165	862 872 864 823 817 786	2988 2948 2527 2696 247 6 2419	928 988 1040 1047 810 960	3714 4018 3958 3888 3733 3352	515 579 509 473 524 555	892 954 912 897 916 780	2307 2485 2537 2518 2293 2017	5:21 5:38 4:68 5:52 4:93 4:74	2·91 3·23 3·35 3·01 3·09 2·97	4884 4481 4695 4459 4526 4126	876 815 898 854 899 841	800 772 848 787 853 753	4·75 4·15 4·75 5·20 5·37 5·69	3·70 3·34 4·08 4·44 4·83 4·37	}12·83	261 270	54·5 56·7 56·6 54·3 54·5 53·1	191 192 191 218 225 280	10 10 11 13 14 17
ULY UG EPT CT OV DEC	4120 4068 4206 4520 4250 4330	837 927 1289 1313 1214 1211	2263 2297 2044 2209 2187 2244	1020 844 873 998 849 875	3530 3108 3359 3503 3441 3227	527 374 406 464 504 453	822 743 755 771 825 723	2181 1991 2198 2268 2112 2051	4·89 4·98 5·19 5·30 4·92 5·01	3·07 3·19 3·08 2·99 2·84 2·86	4499 4356 4513 4684 4290 4371	861 845 800 827 781 806	790 775 764 797 705 766	5:46 5:50 4:61 6:25 3:90 5:36	4·62 4·51 4·87 4·35 3·90 4·06	}13.67	296 292	50·3 50·3 53·3 56·5 54·3 52·8	278 259 264 198 137 113	18: 15: 18: 12: 7: 5:
1931 AN 'EB IAR PRIL. IAY UNE	3817 4065 3929 3902 3575 3915	1074 1151 1171 1263 1125 1283	1970 2049 1914 1810 1701 1800	773 865 844 829 749 832	2574 2757 3076 2877 2438 2513	335 345 342 418 321 414	613 681 734 670 605 593	1626 1731 2000 1789 1512 1506	4·44 5·02 5·32 4·92 4·83 5·51	2·36 2·68 2·67 2·47 2·33 2·81	4543 4244 4535 4203 4014 4106	801 726 775 739 724 691	746 693 722 675 674 650	4·16 4·01 4·29 5·12 5·53 5·37	3·24 3·33 3·46 4·46 4·56 4·59	}11·53	246 255	48·1 50·4 51·6 49·5 48·2 49·1		2 2 1 1 2 2
ULY SEPT OCT OV DEC	3636 3190 3346 3128 2891 2807	1360 1203 1219 1198 1014 938	1534 1313 1436 1199 1164 1148	742 674 691 731 713 721	2420 2316 2435 2535 2535 2385 2097	381 296 334 380 390 329	545 516 551 570 599 504	1494 1504 1550 1585 1396 1264	5·25 4·62 5·04 4·55 4·45 4·15	2·63 2·45 2·54 2·63 2·46 2·30	4037 3933 4074 4336 4076 3882	680 680 655 637 567 543	655 626 538	5·17 5·25 4·86 5·10 4·03	4·40 5·70 3·07 4·11 3·69	}13.5	266 270 278 264 234 220	45.7 46.1 48.6 51.3 48.7 42.0	52 37 20	

^{*} Import figures are based upon declared values. Export figures declared values since 1927, previously based on official values.

New Series.

TRANSPORT.
Shipping.—Tonnage of ships of all nationalities entered and cleared (with cargoes) during the month.
Trucks.—Daily average number loaded on all the principal railways (including State railways but not including those in Alsace-Lorrame).
EMPLOYMENT.
Number of applicants obtaining work through the public labour exchanges during the month, as a percentage of those still not placed,

Germany]



able to avert the crisis. Foreign creditors were already very alarmed and finally the German banks were no longer in a position to withstand pressure, since all their balances were drawn upon at the same time. Indeed, in the first half-year already 2,000 Mn. marks of short term loans had been withdrawn abroad. They were, therefore, not in a position to pay back a total of 6 to 7 milliard marks, and it is a question whether it would be possible for the banks of any country to meet such demands.

July 13th was the black day for German banks and for German industry generally. The closing of the banks, though only temporary, could, of course, only aggravate the situation. As a result of this began the hoarding of bank notes which has not yet completely ceased. The note circulation to-day is therefore greater than would be necessary if the public did not hold notes. The reserveratio has also been unfavourably influenced.

The closing of the savings banks had equally bad results, since although complete freedom to withdraw was restored later, the small public which constitutes the main clientèle regards even a temporary embargo with suspicion, and prefers to forego earnings rather than run any risk with its savings.

To the external causes of the collapse of the confidence of foreign creditors was added an internal cause, namely a large number of bankruptcies. Specially important were the collapse of the Schröder Bank in Bremen, and of the North German Wollkämmerei and the difficulties

of the Karstadt concern. Naturally even these failures were of less significance than the necessity to support two great German banks, the Darmstädter and National bank and the Dresdner bank, which the Reich had to guarantee. the establishment of the Acceptance and Guarantee bank, whose purpose was to allow the Reichsbank to accept and to discount the bills of industrial concerns, the panic which threatened to break out was avoided. Nevertheless this measure alone was not sufficient, and since the banking crash the Government has been compelled to ensure that industry should function, and by continual emergency decrees has intervened in the economic and legal sphere in a way formerly inconceivable. It began with exchange control which drastically limited freedom dispose of foreign currency. This control was made more strict from month to month and to-day not only is all foreign exchange above 200 marks called in by the Reichsbank, but also foreign currency falling due in the future will be commandeered by the Reichsbank, which in this way exercises control over the entire export trade.

A temporary embargo was also placed upon foreign travel by the imposition of a passport fee of 100 marks. This restriction was removed later but only after the height of the summer season.

In order to exhaust all possibilities of obtaining foreign balances, a comprehensive tax amnesty was decreed, and finally an amnesty loan in favour of the railways was issued, which gave the holders of expatriated capital an opportunity of com-

pounding their tax offences by subscription to the loan.

The severe restriction of credit which the banks were compelled to effect, and the impossibility of obtaining new foreign credits after Germany had had to approach her foreign creditors for a "standstill" arrangement with regard to their former credits, necessitated severe restriction of imports. The necessity for preserving liquidity in every way required that exports should not be allowed to decline. No other possibility of effecting payment of German debts abroad than by an export surplus was left.

It should be noticed, as the conference of experts at Basle noted, that Germany, besides repaying existing debts, already has to raise large sums, not offset by any correspondingly large counter claims, for the payment of interest on her long and

short term private debts.

The possibility of speedier repayment of foreign obligations through an increased export surplus is, however, doubly doubtful. The first reason is the everincreasing tariff restrictions. Switzerland even required that German exports should conform to a quota, which in view of Germany's urgent necessity to export could not possibly be conceded. commercial treaty has therefore been ended by Switzerland as from February 1st, 1932. The second reason is the currency policy of countries which are, for Germany, large importers. Under this head the effects of the departure of Great Britain from the gold standard, and the consequent depreciation of sterling, have not yet made themselves manifest, since the accelerated importation of German products before the new English tariff comes into force has partly offset it. On the other hand, exports to Scandinavia have fallen off considerably.

The German Government has adopted completely different policy from England's. While the English Government has lowered wages and prices to a certain extent by devaluation, the German Government has attempted to ease the

crisis by deflationary action. The emergency decree of December 8th lowered wages and prices and increased the purchasing power of the currency. At the same time rents were correspondingly lowered and a reduction of interest on all long term debts was decreed.

Thus, in effect, the same results have been achieved in regard to costs of production and competitive ability in the world market as by devaluation, except in respect of the scaling down of existing debt obligations. On the contrary, existing debts will be rendered much more oppressive the more successful the Government is in raising the internal value of money by emergency decrees. This undesirable effect of deflation should not be overlooked. The emergency decree of December 8th contained regulations which would formerly have been incompatible with capitalism and which bring us nearer to State socialism. In this category comes the interference with existing legal contracts. Existing rent contracts can be terminated by tenants on April 1st of this year, and notice was given of the introduction of a new decree regulating not only rents but also other contracts.

Reich finances developed extraordinarily unfavourably during the past The fall in expenditure was not sufficient to balance the budget. It was decided to increase the turnover tax, which had been reserved for an emergency. It was raised to 2% (2½% for stores), only wheat and flour being exempt. Only the most difficult financial position of the Reich compelled this measure, which since it tended to raise prices counteracted the general tendency towards lowering them. Still more difficult is the position of many municipalities, whose expenditure on social services, relief, &c., necessarily increased month by month.

The position of the Reichsbank, whose gold reserve fell below 1,000 Mn. marks and whose foreign exchange reserve was greatly depleted by payments abroad, could only be maintained at this low-

FINANCE, PRICES and WAGES.

Patternan	emot.	242	HARES.		TD A T	NKING.			ai ai				WEO	LESALE.	Mia Tropa dirona y	707	TAIL.	—
		Ca	pital	Beigl	nsbank.		culation.	sbt. ling	hang	Rate.	cies.			Index	Nos. of	Index	Nos. of	REAL WAGES.
	SHARE INDEX % of the Statitisches ++ Reichsamt	new New Companies.	MW Existing sai	usy Clearings.	HW Outside	MW Reichs- ray Bank Notes only.	M Coinage.	MW Floating Debt.	W Wig New York Exchange of	% Daily Money F	No. of Bankruptcies.	Silver Wk Silver Silver (900 fine)	Houndry Pig Lon No. 3 Oberhausen	Food.	% All Items.	Cost of Living (Reichs Index)	Cost of Living of (Elsas).	All Germany. Index Nos. for Skilled Workers.
War	754 1			6100		Aug., 1914 4500			4.2	July, 1914 3·15	815	81.0		100	100	100	Jan., 1914 100	1913 100
1925 Qr.Av	119·6 99·4 82·0 72·4	13·5 11·6 16·6 26·1	77.7 39.4 41.1 217.9	3889 4190 4475 4421	968 788 836 795	2107 2510 2590 2843	4·36 4·68 4·97 5·07	2841 2700 2534 2424	4·2 4·2 4·2 4·2	11·5 9·4 10·2 9·7	765 753 821 1389	94·4 93·7 96·9 97·4	90 91 89 86	133·5 127·6 137·3 133·5	142·2 139·2 143·5 141·3	136§ 137 144 142	129§ 128 132 130	90 96 96 101
1926 Qr.Av	82·4 97·1 116·8 139·5	10·7 10·3 29·0 22·0	36·8 337·9 282·4 195·7	4158 4527 4769 5504	869 814 712 744	2877 2978 3194 3479	4·94 5·08 5·35 5·57	2330 2237 2176 2193	4·2 4·2 4·2 4·203	8·1 5·6 6·2 6·3	1987 1087 554 464	93·1 89·5 88·2 75·9	86 86 86 86	121·0 122·7 131·5 142·1	134·4 132·3 134·0 136·8	139 140 142 143	129 129 132 134	105 104 102 102
1927 Qr.Av.	167·5 167·6 156·5 140·4	15·7 19·3 69·0 13·1	195·4 153·7 104·2 148·9	6250 8285 8664 9381	732 675 670 620	3488 3737 4015 4327	5·47 5·70 5·96 6·14	4213† 4400 4331 7947*	4·214 4·219 4·210 4·191	6·4 7·0 7·25 7·4	508 437 398 546	78·9 78·3 77·5 78·8	86 86 83 78	138·5 138·1 137·7 136·9	135.5 136.7 138.3 139.8	145·0 146·9 147·9 150·7	136 140 140 142	101 104 104 103
1928 tOr.Av.	144·9 151·7 149·4 147·7	22·1 31·3 33.8 24·7	64·2 138·4 127·6 249·8	9728 10115 9968 10523	560 517 532 534	4344 4527 4691 4775	6·03 6·22 6·40 6·49	7821 7896 7922 8130	4·192 4·179 4·190 4·196	7·4 8·0 8·0 7·9	752 669 579 661	79·0 81·3 81·6 79·8	82 82 82 82 82	131·2 135·1 136·1 134·7	138·3 140·6 140·9 140·2	150·7 150·9 152·8 152·4	144 144 144 146	103 106 106 108
JAN FEB MAR APRIL MAY JUNE.		116·7 133·3 96·7 29·3 17·4 20·4	239.6 53.6 67.8 95.8 103.8 87.7	11825 9781 10107 12146 107 6 9 10146	610 467 449 670 649 603	4454 4553 4822 4631 4606 4839	6·14 6·25 6·54 6·30 6·31 6·50	8331 8567 8950 8932 9122 9410	4·202 4·211 4·214 4·216 4·217 4·196	6.0 7.0 7.5 7.5 8.5 8.5	832 775 930 885 846 803	79·0 78·5 78·4 77·9 75·9 7 3·6	82 82 82 82 84 85	131.7 133.9 133.7 128.3 124.7 124.7	138·7 139·5 139·9 136·9 135·8 134·9	153·1 154·4 156·5 153·6 153·5 153·4	147 148 145	108 107 106 108 110 110
JULY AUG SEPT. OCT NOV DEC	135.7 134.2 132.4 124.7 119.8 115.2	13·2 13·8 3·8 10·3 14·5 23·2	84.6 61.3 58.7 41.7 186.9 17.0	11479 9930 968 6 11149 9645 9562	615 453 427 453 495 402	4726 4897 4914 4833 4916 5044	6·35 6·54 6·58 6·47 6·56 6·66	9308 9277 9583 9620 9776 9351	4·198 4·196 4·202 4·195 4·178 4·178	8·5 8·25 9·0 8·0 8·0	845 739 657 840 813 881	72·1 72·9 72·6 70·3 68·9 67·6	85 85 85 85 85 85	132.4 132.6 132.6 131.7 128.4 126.2	138·2 137·9 138·2 137·3 135·3 134·4	154·4 154·0 153·6 153·5 153·0 152·6	146 148 148	110 110 110 110 111 111
JAN FEB MAR APR MAY JUNE	120.0 120.6 119.0 122.2 121.7 116.4	37·9 11·8 8·9 104·1 27·0 10·3	148·0 36·4 18·2 78·2 47·7 33·7	10589 9122 9775 10142 10258 9565	543 502 459 638 556 537	4653 4722 4805 4664 4812 4685	6:15 6:22 6:31 6:17 6:32 6:27	9388 9412 9628 9863 9400 11123	4·184 4·186 4·191 4·189 4·189 4·190	8.0 7.5 7.5 6.0 5.5 5.25	1106 1103 1142 1006 1062 853	64·3 61·1 59·4 58·5 58·9 53·9	85 85 85 85 85 85	121.8 116.0 110.0 112.1 110.7 109.7	132·1 129·8 126·3 126·9 125·8 124·2	151.6 150.3 148.7 147.4 146.7 147.6	147 145 145	112 113 115 116 116 116
JULY AUG. SEPT. OCT NOV DEC	110·0 103·3 102·3 95·8 92·3 87·3	76·2 45·4 157·3 38·6 30·3 11·6	94.6 40.6 81.4 98.6 3 0.2 36.1	11161 9294 10093 11212 8684 9447	427 447 352 355 282 301	4638 4707 4744 4674 4601 4778	6·21 6·30 6·34 6·27 6·19 6·38	10908 10969 11030 10940 11454 11295	4·195 4·183 4·189 4·202 4·197 4·195	5.0 5.0 5.0 5.0 6.25	977 810 759 843 829 850	48.6 48.1 48.6 49.4 49.9 49.6	83 83 83 83 83 83	114.8 116.6 113.5 109.3 112.0 110.4	125.5 125.0 123.0 120.0 120.5 117.9	149·3 148·8 146·9 145·4 143·5 141·6	147 144 140	114 115 116 117 119 120
JAN FEB MAR APR MAY JUNE	81.8 85.6 91.1 92.4 83.0 75.9	41·0 4·9 3·9 3·1 247·3 3·4	99·8 117·4 12·4 14·5 69·8 53·4	9588 7962 8882 8969 8607 10324	323 250 266 313 279 324	4383 4428 4456 4340 4299 4295	5.96 6.02 6.05 5.92 5.86 5.96	11251 11172 11283 11350 11494 11539	4·198 4·206 4·206 4·200 4·200 4·211	6:0 6:25 6:0 6:0 5:5	1085 1065 1240 972 956 1034	44·1 40·6 38·9 39·9 40·1 37·1	78 78 78 78 78 78	106·7 105·9 106·7 108·3 109·2 107·3	115.6 114.0 114.3 113.8 113.5 112.2	140.4 138.8 137.7 137.2 137.3 137.8	139 137 135	120 121 121 119 117 117
JULY AUG SEPT OCT NOV DEC	56·8 —	17.9 201.1 11.6 4.0 1.4 3.7	35·4 12·7 322·6 7·4 27·8 45·4	4554 4310 6214 5868 4760 5803	307 526 393 551 407 434	4554 4384 4609 4746 4641 4756	6·14 6·04 6·30 6·48 6·39 6·64	11443 11323 11709 11743 11638 11707	4·213 4·213 4·213 4·213 4·213	8·25 11·0 10·0 9·0	1013 1065 1341 1435 1215	41·2 — 39·2 41·0 45·0	78 78 78 78 78	105·4 103·4 101·1 98·5 98·5	112·3 110·8 108·8 106·7 106·6	137·4 134·9 134·0 133·1 131·9	136 134 129	117 119 120 120 120
1932 JAN				5022	384	4407	domption		4.213	9·0 7·5	1178	42·5 44·2	73-35	94.5	103·6 100·7	130.4	121	

† Including Redemption Loan and New 1927 Loan.

| Includes Bevag Flotation

*Redemption loan debt subsequently included at redemption value, i.e., 5 times previous nominal quotations.

‡ Base 1924-6 average. § March.

Share Index.-

Index Numbers for middle of month. Based on 1924-6 average. Wirtschaft und Statistik.

Capital Issues.-Reichsbank—Clearings—

Wirtschaft und Statistik. Outside Deposits.— Second week of month.

Wirtschaft und Statistik.

Note Circulation.— State Debt.-

End of month.

New York Exchange -

. 10 10 10 1st of month, PRICES. Wholesale-

Silver.— Pig Iron.— Food and All Items.—

Retail— Reichs Index.— Elsas Index.—

WAGES .-

1st of month.

lst of month.

Monthly average. Wirtschaft und Statistik.

Statistisches Reichsamt Index — average for month and middle of month respectively.

For middle of month. Elidienst des statistischen Reichsamtes.

Includes clothing. For 1st of month. Indexziffern über die Kosten der Lebenshaltung.

Wirtschaft und Statistik. Weighted average for skilled workers in 12 occupations. Average for month. Bäsed on hourly wages from 1981, previously on weekly wages. previously on weekly wages-

TRADE, TRANSPORT, EMPLOYMENT.

				EXT	ERNA	L TRA	DE.					OUTPUT		SHIP	PING.	ipts.	UNEM	IPLOY	M'NT.
		IMPC	RTS.			EXPO	RTS.		Estim'd in Gold	value Marks				HAM1	BURG.	Goods Receipts.	ns d.	Perc'i	ge of Union
	Total.	Food.	Raw Material:.	M'factures	Total.	F003.	Raw Mat_rials.	M'factures.	Imports.	Exports.	Coal.	000 Iron.	oo Steel.	Entered.	Cleared.	Railway Good	Total Persons Unemployed.	Unem. ployed.	
Pre-War			Weight	in 0000	Metric	Tors.	· ·			Mn.	Metric Tons.	Metric Tons-	Metric Tons.	Tons.	000 Tons.	Mn. M.	000	%	%
Average 1925	607*				614*				934	850	1474	910	981	1182	1203				
1st Qr. Av. 2nd Qr. Av. 3rd Qr. Av. 4th Qr. Av.	435 452 476 373	65 70 99 59	357 368 364 304	12 12 12 9	278 313 349 338	20 23 15 25	210 246 283 257	47 47 51 55	1203 1079 1196 926	680 697 751 815	1129 1023 1122 1150	925 933 796 740	1182 1096 937 856	1373 1465 1390 1336	1370 1498 1447 1330	233·1 227·5 239·0 238·8		7·8 4·6 3·8 7·0	5.8 5.0 6.0 12.1
1926 1st Qr. Av. 2nd Qr. Av. 3rd Qr. Av. 4th Qr. Av.	290 328 398 426	47 70 98 89	236 248 290 322	7 8 10 12	357 419 659 632	25 15 14 24	271 345 584 546	61 59 61 62	714 744 950 1120	839 758 833 865	1107 1084 1294 1360	679 708 833 994	852 915 1103 1245	1273 1381 1666 1503	1287 1389 1701 1522	193 0 211 0 239 9 281 7	2414 2245 1976	21·3 19·4 17·5 14·5	21·1 19·7 16·3 10·4
1927 1st Qr. Av. 2nd Qr. Av. 3rd Qr. Av. 4th Qr. Av.	484 550 637 598	89 103 106 105	379 425 508 469	14 20 22 22	471 397 418 359	14 16 15 20	396 327 344 274	60 54 58 58	1139 1162 1226 1275	800 794 885 945	1338 1197 1278 1306	1038 1083 1110 1136	1319 1331 1386 1394	1500 1666 1651 1785	1486 1659 1705 1784	245·9 266·7 272·4 287·1	2454 1642 1060 1002	16·2 9·1 5·6 5·5	6·6 3·7 2·7 2·2
1928 1st Qr. Av. 2nd Qr. Av. 3rd Qr. Av. 4th Qr. Av.	547 513 600 540	91 81 93 87	433 411 488 434	21 19 18 18	373 348 397 395	18 22 20 33	293 265 307 304	61 61 70 58	1305 1184 1231 1286	944 906 1002 960	1349 1183 1255 1242	1158 1037 1017 722	1405 1234 1277 917	1724 1857 1828 1756	1726 1837 1862 1724	269·1 255·1 277·9 286·9	1956 1436 1175 1410	11·5 7·4 6·3 7·8	3·4 4·3 6·5 6.9
1929 JAN FEB MAR APRIL MAY JUNE	533 340 417 554 589 590	79 50 52 89 71 64	436 275 350 447 498 505	17 13 14 17 18 18	371 282 359 461 458 439	28 18 19 40 35 31	277 209 285 339 341 336	65 54 55 82 82 72	1332 1024 1031 1266 1133 1113	1039 925 933 1164\$ 1102 1019	1349 1210 1350 1341 1276 1322	1098 982 1061 1105 1133 1164	1469 1270 1314 1415 1421 1431	1679 1307 1666 1770 1856 1774	1706 1252 1662 1817 1845 1778	259·7 251·3 313·5 290·9 282·8 293·6	2545 2896 3116 2555 1835 1489	16·7 19·4 22·3 16·8 11·1 9·1	7·5 8·7 8·9 7·5 7·1 6·8
JULY AUG SEPT OCT NOV DEC	610 586	111 73 77 67 76 77	525 578 520 525 493 426	18 17 16 17 15 14	481 510 560 531 507 528	20 22 31 36 33 28	386 410 455 416 405 430	75 78 74 79 69 70	1433 1094 1082 1130 1187 1060	1035 1127 1140 1169 1095 1008	1436 1447 1348 1484 1416 1365	1204 1167 1109 1157 1090 1100	1466 1401 1234 1377 1286 1156	1744 2026 1914 1989 1903 2006	1728 2006 1828 1959 1879 1911	303·2 303·3 295·8 331·0 301·0 258·4	1383 1355 1360 1403 1627 2101	8.6 8.9 9.6 10.9 13.7	6·7 6·9 7·0 6·8 7.0 7·6
JAN FEB MAR APRIL MAY JUNE	504 447 474	148 64 52 71 47 55	468 426 380 388 395 403	14 13 13 14 15 13	537 455 465 440 518 466	24 21 27 24 26 32	438 369 367 349 419 376	75 65 71 67 73 58	1320 1144 884 968 863 847	1036 966 1046 929 1022 861	1440 1217 1254 1148 1195 1080	1092 965 1007 901 859 767	1275 1176 1201 1033 1034 859	1763 1725 1918 1806 2036 1955	1808 1688 1853 1817 2062 1809	241·9 224·1 253·9 230·1 247·7 228·7	2895 3218 3366 3041 2787 2635	20·1 22·0 23·5 21·7 20·3 19·5	8·5 11·0 13·0 12·6 12·1 12·0
JULY AUG. SEPT. OCT. NOV. DEC.	488 447 465 397	70 46 42 59 42 45	445 429 392 394 344 326	12 12 12 11 11 11	490 450 463 515 426 407	21 21 20 21 21 21	410 364 382 429 349 329	59 64 61 64 55 57	916 803 747 850 743 723	897 920 1047 1419† 873 854	1160 1147 1173 1222 1082 1152	771 739 653 687 637 615	906 897 814 856 739 744	1785 1960 1849 1992 1803 1845	1946 1935 1947 1898 1808 1763	239·9 237·2 243·0 260·1 220·1 209·7	2641 2765 2883 3004 3252 3699	19·5 20·5 21·7 22·5 23·6 26·0	12.6 13.9 14.8 15.1 15.4 16.1
JAN FEB APRIL MAY JUNE	411 347 326 357 327 381	60 40 41 48 43 50	341 296 274 298 272 318	10 11 11 11 11 11 12	441 367 405 413 418 435	15 14 19 26 22 18	371 303 327 333 342 365	55 50 58 54 53 52	769 673 632 730 629 655	727 735 825 783 750 1284†	1153 979 1061 951 934 949	603 520 560 529 555 575	773 760 811 743 744 779	1777 1491 1770 1733 1816 1856	1796 1528 1662 1695 1882 1815		4384 4887 4972 4744 4358 4053	31.7 34.2 34.5 33.8 31.9 30.0	16:9 19:2 19:5 19:0 18:2 17:5
JULY AUG SEPT OCT NOV DEC	386 329 290 300 299 316	65 38 41 47 41 52	310 282 240 245 249 256	10 9 8 8 8	443 474 480 521 461 401	18 18 27 29 28 28	366 397 387 424 377 320	58 57 66 68 55 55	607 463 460 519 497 507	1203 780 890 1029 919 716	1004 952 985 1032 962 902	569 499 438 434 427 352	803 689 593 603 548 438	1867 1803 1693 1696 1719	1820 1761 1745 1770 1604	180·8 199·7 207·1	3954 3990 4215 4355 4623 5060	36.8	17." 19.5 21. 22. 22. 21.
1932 JAN																	5668	42.3	22.

* Including Luxemburg.

 $\$ Excluding exceptionally large exports of gold and silver. \dagger Including large amounts of bullion,

NOTES AND SOURCES.

IMPORTS AND EXPORTS.

Weight— Values in Gold Marks—

COAL OUTPUT.

SHIPPING.

RAILWAY GOODS RECEIPTS-UNEMPLOYMENT-

Wirtschaft und Statistik. Statistiches Reichsamt.

Excluding Saar—Wirtschaft und Statistik.

Statistiches Reichsamt.

Wirtschaft und Statistik.

Total No. of Persons Unemployed on 1st of month. Wirtschaft und Statistik. Trade Union percentages for end of month, but given as for following month to be comparable with previous column.

Germany]

level because deliveries of foreign exchange, whether to meet foreign obligations or to pay for imports, were greatly curtailed. The credit facilities of the Reichsbank on the other hand had to be expanded in order to compensate the withdrawal of foreign credits. The consequence was an increase in the bill portfolio. By the relative restriction of the means of payment (higher discount rate at the beginning of the banking crisis and regulation of the dispatch of mark balances aboard) the pressure of foreign supplies of marks on the exchange was mitigated. When, nevertheless, the mark did fall below parity abroad the fall was only temporarily at the beginning of the banking crisis. Later the mark remained firm both in dollars and in Dutch guilders. The strained position of the Reichsbank caused by withdrawals of gold and foreign exchange is illustrated by the movements of reserve ratio against Reichsbank notes.

BACKING OF REICHSBANK NOTES. %

1931 By	By gold	1931	By	By gold
End of: gold.	& devisen.	End of:	gold.	& devisen.
January 51-2	55.7	July	30.6	36.1
February 51.6	55.3	August	31.8	39.3
March 52.1	56.4	September	28.2	31.2
April 54.6	58.2	October	26.2	29.4
May 55.6	59.9	November	21.6	25.3
June 33.1	40.1	December	20.6	24.2

With few intermissions the Bourse has remained closed from July 13th, the darkest day in German economic history. Business can only be carried on privately between the banks. The level of quotations had fallen to an extraordinary extent by the end of the year as compared with the first half-year, both for ordinary shares and bonds. Shares have been affected by the severe decline in profits, and also by the big failures. Careful nursing of the stock market will be necessary before the public come in once more as buyers. On the bond market the loans of the Reich and communes in particular experienced heavy falls. Movements in sympathy with foreign bourses, which also experienced considerable losses in 1931, and the effects of happenings in Germany contributed in depressing the level of the

prices of German securities. Also the sale abroad of German securities, which could not be prevented at the beginning of the crisis, increased the supply and strengthened the pressure on prices.

Commodity prices fell further during 1931. The general wholesale price index fell from 117.8 in December, 1930, to 103 in December, 1931, the index of agricultural prices from 110.4 to 93, and that of finished goods from 142.9 to 130.5. The gap between agricultural and manufactured products has therefore increased further. The greatest fall occurred in the index of sensitive commodities (pig-iron, lead, wool, hemp, flax), which fell from 81.8 to 56. The prices of cartelised products fell less than other products.

The cost of living fell about 13% during 1931, and is now at the 1924 level. This fall is due chiefly to food, the principal fall being in meat, wheat being held above the world price by customs duties. The group indices for the end of December, 1931, are as follows: food 112, clothing 110, rents 120, heat and light 122, miscellaneous 186.

The internal value of the mark as measured by the cost of living amounted at the end of January, 1932, to $82\frac{1}{2}$ pfennig (pre-war).

Production fell off during 1931, the production of consumers' goods declining less than that of producers' goods. The production of commercial road vehicles has fallen off very greatly and the production of building materials has suffered particularly from the credit crisis, since not only private building but also the building of houses by public authorities had to be considerably curtailed on account of the financial difficulties of the municipalities. Production of pig-iron also declined sharply although the diminished home demand was partly offset by Russian orders. Otherwise the decline would have been catastrophic.

Foreign trade in 1931 was considerably reduced in value, mainly owing to imports which fell even in volume almost monthly. Exports also fell in

value but not to the same extent as imports. The export surplus has therefore increased considerably since July when the pressure to export became stronger. In September and October record export surpluses were registered. Meanwhile. the prospect of maintaining as favourable a balance of trade in the future has become considerably more doubtful since import quotas, tariff increases and currency depreciations limit the possibilities of export. The fourth emergency decree has indeed brought a fall in the prices of of raw materials and in wages, but it remains to be seen whether this policy of lowering prices will be sufficient to overcome the obstacles with which German exports are confronted.

Credit conditions have obviously worsened. This showed itself equally in the number of bankruptcies and in that of compulsory settlements which have increased considerably since September, as has the number of protested bills.

Wagon loadings on the railways naturally declined also, the decline amounting in the single months of the last half-year to between 15 and 20%.

Unemployment reached a record figure in 1931. From 4,384,000 at the end of December 1930, it fell to 3,954,000 at the end of June, having reached a maximum of 4,972,000 in February. By the end of 1931 it had increased to 5,600,000. Short-time also increased so that the income of the masses fell considerably.

Nominal wages also fell during 1931, but real wages only fell a little, thanks to the corresponding fall in the cost of living. The last emergency decree declared that all contracts at a higher wage than that of January 10th, 1927, should be reduced to that level as from January 1st, 1932. Where the difference between the two dates is greater than 10%, the cut amounts only to 10%, but where wages and salaries have not been reduced since July 1st, 1931, it amounts to 15%.

RECENT EVENTS.

On the money market a slight easing has occurred. The private discount rate fell slightly below 7%, and the large banks have lowered their rate on deposits to $3\frac{1}{2}\%$ as from January 12th. The Reichsbank again lost gold and foreign exchange in January, though only a small amount. In the middle of January the bill and cheque portfolio amounted to 3,587 Mn. marks and the note circulation to 4,381 Mn., with a backing of 966 Mn. in gold and of 154 Mn. in foreign exchange. The reserve ratio has risen to $25\frac{1}{2}\%$ as a result of the decrease in the note circulation.

With regard to the financial position of the Reich, the additional charges for arrears of taxes outstanding, which were lowered to 12% per annum by the last emergency decree, were raised to 36% at the end of January. The emergency decree of last July fixed this charge at 120% per annum, and the December decree reduced it to 12%. It is to be supposed that this sharp reduction was an

encouragement to the delay of tax payments and caused a fall in tax receipts. This had to be counteracted by raising

the charge again.

The bourse remained closed in the new year. Business between banks assumed a more cheerful tone at the beginning of the month. Money becoming free through dividend and interest payments has possibly helped, and also the fact that demand is only exercised on a limited market for unofficial dealings. As a result quotations were firmer than formerly.

Not only fixed interest securities, but also ordinary shares recovered a small part of their previous losses. Towards the middle of the month, weakness was again experienced after investment requirements, were satisfied. The fact that the Lausanne conference did not meet, and therefore the reparations questions were not cleared up, was a depressing factor. Towards the end of the month when the new "standstill" agreement for German short-term

Germany]

debts was concluded, stock exchange business recovered.

Prices again fell in January. The index of wholesale prices fell on January 20th to 100, the level of 1913. The index of agricultural prices stood at 91.6, that of industrial raw materials at 92.5, and that of finished goods at 125.4. Production again fell off. Credit conditions are still poor and the number of bankruptcies and compulsory settlements is still high.

Foreign trade for December showed an export surplus (merchandise only) of 250 Mn. marks, of which 26 Mn. were reparations deliveries. Exports fell 11 Mn. marks as compared with November, while imports increased by 6 Mn. The export of finished goods was the same as in November.

Unemployment has again increased, the total number in the middle of January

being 5,996,000, an increase of 300,000 as compared with the end of last year. In the same period of last year the increase was 380,000, but the total number is now 1,200,000 greater than at the same time last year.

OUTLOOK.—The outlook is still overshadowed by political events. In foreign politics the reparations question, and in domestic politics the coming elections in Prussia and the Presidential election depress enterprise. Increasing protection in all countries causes great uneasiness. On the other hand there are two facts which may aid progress, namely, the fact that the impossibility of reparations payments in the near future is now recognised for the first time even by creditors, and the fact that Germany has built up a favourable trade balance which may permit the payment of interest on private debts, so that German credit is preserved.

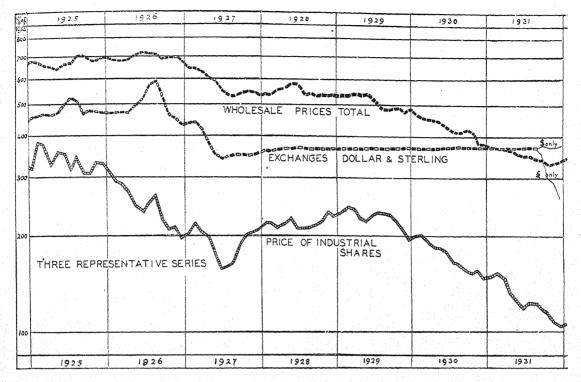
ANNUAL STATISTICS.

		1913	1925	1926	1927	1928	1929	1930	1931
FINANCE— Reichsbank Clearings	Mn. Mks. ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,,	73634 6070 41587 720 — Average 5.88 9780	50927 4773 110000 1332 7301 Since Mar. 9 11184	56876 5235 114809 2775 6866 Since July 6 12274	97743 5820 136052 2158 8218 Since Oct. 7 5668	121002 6287 145812 2069 8964 7	126225 6432 150692 493 9001 Since Dec 7 9846	119342 6261 141451 559 9112 Since Oct. 5	85841 6145 123189 543 7928 Since Dec. 7
PRODUCTION & TRADE— Total Imports † Food Raw Materials and semi-Manufactures Manufactures	Mn. Mks.	11206 2808 6280 1392	13207 4054 6199 2016	10580 3591 4927 1321	14152 4350 7150 2467	15012 4196 7249 2458	13829 3811 7203 2270	10808 2968 5499 1794	7141 1965 3476 1225
Total Exports † ‡ Food	Mn. Mks.	10199 1070 2274 6746	8831 510 1641 6628	9885 474 2363 6995	10273 419 2243 7550	11427 606 2277 8501	13689 716 2531 9456	11870 478 2145 8537	10641 360 1703 7111
Lignite Output Coke ,,	La.M. Tons ,, 000 M. Tons	141 87 32 10916 11466	133 140 27 10177 12193	145 140 26 9642 12341	153 149 32 13101 16291	151 167 34 11803 14502	163 175 38 13396 16241	143 146 32 9693 11536	119 133 23 6062 8292
TRANSPORT— Railway Receipts	Mn. Mks. ,, ,, 000 Tons	2256 1008 14376	4595 2813 1428 16812	4518 2807 1321 17585	5011 3216 1372 19853	5140 3267 1447 23192	5345 3485 1425 20639	4563 2836 1346 22387	3579* 2163* 1072* 19147*

^{*} For 11 months (excluding December). † Including gold and silver. ‡ Excluding reparations.

ITALY.

Information communicated by Professor C. OTTOLENGHI, of the Royal University of Turin.



REVIEW OF 1931.

February 1st, 1932.

N our review of 1930 published a year ago, we observed that the economic world was not in the throes of a crisis which is essentially transient and of relatively short duration, but of a true economic depression. We are experiencing a great economic upheaval which has arisen from the change in technical processes of production in the economic organisation and from the change in the mass of tastes and habits. Every generation undergoes one of these great disturbances which modify the structural outlines of the economic system. Therefore it is not surprising that this great disturbance, for whose outburst the crisis of 1929 in the U.S.A. provided the occasion, still persists at the present time.

As regards Italy, the country has been severely tried both by the scarcity of raw

materials and by the effects of the special German crisis, and the fall in sterling, which are aspects of the general disturbance, but it should be stated that, although unemployment has reached a high level, in some industries and trades which will be referred to below, the depression has not reached the gravity and extent which would appear at first sight. Thus, in some industries employment has been almost continuous; this depends in great part on the cohesion existing between the economic classes joined in the collaborative system, which has withstood a severe test in this depression.

One feature of the present phase of the depression is that this is so subordinated to politics, that the appearance of a tendency towards improvement or the reverse in international political relations is sufficient to cause the bourses of the different countries to rise or fall, which leads one to suppose that if the antagonism between countries could be reduced there would result a stimulus to the economic confidence which is the basis of a phase of recovery.

Population.—The resident population of Italy according to the census for April 21st, 1931, was 41,000,000 (provisional), and the estimate for December 31st was 41,500,000. The vital statistics reflect the consequences of the economic disturbance in several ways. The number of marriages in 1931, 271,000, was 30,000 less than in 1930, the number of births 1,018,000, or 75,000 less than in 190; for the same periods there was an increase in mortality so that the natural increase which was 520,000 in 1930, a figure considerably higher than in 1929, fell to 416,000 in 1931.

Emigration of workers as estimated according to the new method of the Central Institute of Statistics amounted to 280,000 in 1930 and fell to 166,000 in 1931, through restrictive legislation of various countries and the deepening of

the depression in every country.

PRODUCTION. — The output of the chief agricultural products is given below. The great rise in grain, which was certainly partly due to the exhortations to increase individual output, had a general and a special influence; there was a slight fall in production of grapes, a large fall in that of silk, for which prices had continued to fall during the year causing an individual silk crisis in the midst of the general depression.

Whilst the iron and steel trade seriously felt the depression, artificial silk showed great potentiality and helped

to limit unemployment.

PRODUCTION.

	Grain	Grapes	Cocoons	Pig-iron	Crude Steel	Sheets	Artif, Silk
1000	Mn. Q 70.8	uintals 64.3	Mn. Kg. 52:0	678	000 tons 2142	1951	Mn, Kg. 32:5
	57.5	58.7	52.7	534	1774	1677	30
1931	67.4	55:7	34.4	509	1452	1257*	34
		Y yan in	*	11 month	18.		

Also the paper trade did not feel the depression much, output in 1931 was only a little less than in 1930; the same may

be said of electricity production (9,146,000 Kwh. in the first eleven months of 1931, 9,384,000 for 1930), but the lower total for 1931 was due to the decline in the early months, for in several subsequent months the energy produced and imported was higher than in the corresponding period of 1930. Cement production fell, and the output of superphosphates and cotton declined fairly considerably, the latter as indicated by the percentage of active spindles.

COTTON TRADE — SPINDLES ACTIVE. %

Feb. Ap. June Aug. Oct. Dec.
1930 89.6 84.5 81.1 65.3 79.3 76.8
1931 77.6 74.4 78.0 69.1 77.9

Finance. — Treasury accounts for December, 1931, recorded a supply of liquid funds, *i.e.*, in accounts immediately available, of 2,566 Mn. lire. The accounts for December showed effective receipts of 1,467 Mn. and payments of 1,754 Mn., so that there was a deficit of 287 Mn., whereby the aggregate deficit, which had been 1,382 at the end of November, rose to 1,669 at the end of the year. But this is not a very serious deficit for a country whose adverse trade balance was nearly 3,000 Mn. less than in 1930.

The position of the Bank of Italy on December 31st, 1931, compared with 1930, shows an increase of 330 Mn. in the gold reserve, of 650 Mn. in the portfolio, 600 Mn. in advances, 263 Mn. in sight obligations and 100 Mn. in current accounts. The circulation fell from 15,680 to 14,295 Mn. whilst the reserve ratio rose from 33% to nearly 40%. The official discount rate in 1931 stood at 5.5% until September 28th, when it rose to 7%.

One of the features of the year was the disturbance of the exchange. This has been always represented by the value of the lira in sterling and dollars, for these two currencies were practically equivalent to gold, and because it was of interest to know the relation to these currencies in which so many important foreign commercial transactions took place; but since the fall in sterling it is no longer a standard of reference. In any

case, however, allowing for the inevitable consequences of the fall, which was unexpected and rapid, the lira remained firm. Sterling, which still stood at 92.90 on September 18th, was worth only 71.51 on 25th, and the October-November-December averages were 75.51, 72.15 and 65.71; whilst the dollar in these months showed a slight rise from 19.23 to 19.25 to 19.43. Only the franc, and the Swiss franc in particular, showed a rise.

The stock exchange was specially affected in 1931 by reason of the lack of confidence, which is a characteristic feature of the present depression. Shares which had diminished almost continuously after the early months of 1930 fell almost without interruption during 1931, as is seen from the course of the Bachi index based on 173 quotations and our 20 industrials index quoted below. On the contrary, bonds and government securities show that they retain the confidence of investors in spite of some fluctuations.

	Bac	hi		20	5	%	14	
(deneral	Index.	Indu	strials.	Con		Bon	ds.
	1930	1931	1930	1931	1930	1931	1930	1931
Jan	127	96	199	150	78.8	80.3	103	103
Feb	129	98	200	152	79.8	81.4	103	103
March	124	96	189	148	80.1	82.7	104	104
April	128	88	184	133	81.6	83.0	105	105
May	126	84	183	126	84.2	83.2	105	104
June	120	80	178	119	84.8	83.2	105	104
July	115	81	164	124	81.2	81.2	104	104
Aug	112	79	162	123	80.6	81.2	104	104
Sept	110	74	157	118	80-7	81.6	105	109
Oct	105	70	153	115	80.9	81.2	104	103
Nov	103	68	156	109	82.8	82.2	104	103
Dec	. 98	68	148	106	82.2	82.6	104	104

Also the bulk of the depositors in the savings banks retain their confidence in spite of adverse circumstances. Deposits in the local savings banks which amounted to 14,404 Mn. at the end of 1930 had risen to 14,784 Mn. at the end of November, 1931 (latest available data), being inferior only to a few maximum figures recorded in the year; in the same period deposits in the Post Office rose from 13,047 to 14,072 Mn.

The number of new limited companies fell from 2,420 in 1929 to 2,234 in 1930 and 1,730 in 1931. In the table on p. 18 the low level of new capital issues, which reached a minimum in December last,

will be seen. Changes in the number and liabilities of bankruptcies reflect the depression. During the year some tendency to improvement appeared, but this was soon interrupted, and bankruptcies in 1931 numbered 12,914, whereas they were fewer in 1930, 12,196, but at the same time the number of dishonoured bills rose from 1,004,000 to 1,220,000.

Wholesale Prices.—The downward tendency which began tentatively in 1929 and which was afterwards transformed into a rapid fall, continued but with retarded force in 1931. In the last months of the year there was relative stationariness, which is to be observed in the general indices. The monthly movements in the Milan index, based on 125 commodities, show a range of 85 points in 1930 and of 36 points in 1931; whilst for our sensitive index (see table p. 19), the range was 88 points in 1930 and 36 in The differences in the movements 1931. during 1931 of the individual commodities, grain, meat, silk, cotton yarn, coal, may be studied in the table on p. 19. Grain prices were very high in the first months of the year owing to the previous short crop, but afterwards, as a result of the subsequent good world harvest, world prices diminished, but the tariff policy protected internal prices. Meat, which at the beginning of the year was at a very high level, fell 100 points (or 20%). Silk prices also fell nearly 30%. Cotton yarn fell in the third quarter but recovered somewhat in the fourth.

Retail prices continued to fall, but slowly, as in the previous year.

External Trade and Transport.— The provisional nature of the December trade figures does not preclude a comparison of the 1931 total. The total value of imports, 11,624 Mn., was nearly 5,722 Mn. below that of 1930; that of exports 10,040, or 2,079 Mn. below 1930. There resulted an adverse balance of only 1,584 Mn., whereas in 1930 it had been 5,227 Mn., and in the last three months of 1931 the balance was favourable by 35, 39 and 35 Mn.

	EX	CHAN	GES.	SHA	RES.		BAN	KING.		w	Ī		IMP	ORTS.	NO SECULIARISMO	AD	1	XPORT	rs.	IM-	Ex.
	Val	ue in Ii Lire.	alian		la.		Bank	of Italy.		TCIE			VOL	UME.			v	OLUM	E.	PORTS	-
	Dollar.	Sterling.	Franc.	Price of 20 Industrials.	M New Capital	Clearings.	Circulation.	Deposit & Cur- rent Accts.	Savings Bank Deposits,	BANKRUPTCIES IN ITALY.	Grain.	Coal,	Cotton.	Petrol and Benzine.	Coffee and Sugar,	Wool,	Silk.	Cotton Yarns and Tissues.	Citrus and other Fruit.	EXTE TRA exclu prec met	RNAL DE ding ious
1913	%	%	%	%	lire.	%	%	%	%	No.	%	%	%	%	%	%	%	%	%	Mn. lire,	Mn. lire.
Average 1925	100	100	100	100		100 (mid	100 1913)	100 (end	100 1913)	596†	100	100	100	100	100	100	100	100	100	303	209
1st Qr. Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	465 476 505 478	457 476 504 476	128 125 124 100	359 348 327 326	93 105 80 51	1669 1656 2071 2155	825 861 931 927	1072 931 875 833	441 441 428 435	634 614 569 590	184 191 51 68	92 98 91 110	148 147 90 90	180 193 219 221	894 280 205 421	169 248 98 172	93 98 128 81	126 137 163 155	99 92 75 96	2189 2643 1791 2122	1336 1522 1473 1764
1st Qr. Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	475 498 563 452	475 497 561 447	91 82 79 81	299 254 249 208	170 101 70 50	2089 2479 2049 1600	876 851 876 878	818 890 1773 2283	435 439 443 441	650 631 633 699	111 167 92 103	115 143 100 93	162 102 109 99	204 211 286 233	214 172 294 180	211 383 172 116	68 84 78 86	112 104 126 124	93 77 101 108	2207 2541 1936 1934	1338 1484 1577 1823
1st Qr.Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	437 360 352 353	435 360 351 353	89 73 72 72	209 181 175 208	50 46 64 42	1375 1250 1110 1185	853 837 856 865	2132 2244 3349 3293	433 431 442 451	844 935 984 1 015	176 158 89 86	143 140 125 111	135 101 80 98	223 237 329 285	187 557 522 281	278 225 122 162	60 53 73 97	105 110 143 149	104 83 96 83	2059 1884 1281 1565	1309 1350 1134 1409
1st Qr.Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	362 363 365 366	363 364 365 364	74 74 74 74 74	218 219 215 231	41 74 43 65	1169 1379 1136 1387	654§ 648 654 650	4016 3214 3095 2143	476 487 497 500	1113 968 855 872	122 181 118 136	109 186 113 104	127 117 104 113	277 344 384 311	318 895 £19 337	376 312 11 7 153	87 71 63 70	131 131 134 174	85 62 79 86	1695 2006 1630 2008	1136 1196 1090 1420
JAN FEB MAR APRIL MAY JUNE	366 365 365 365 365 366	364 365 364 365 364 365	74 74 74 74 74 74	239 247 242 227 221 230	105 81 78 50 81 65	1301 1259 1293 1309 1102 1109	625 611 619 615 613 632	2488 2261 2158 1706 1623 1303	517 521 521 521 520 519	948 773 862 974 942 957	129 113 166 156 178 148	110 103 110 124 123 134	152 146 129 126 123 117	294 214 294 336 338 392	296 180 204 195 208 181	380 310 409 399 423 307	57 55 59 96 93 99	137 129 152 105 168 158	138 21 100 79 48 201	1785 1799 1988 1976 1888 2262	1000 1088 1190 1248 1256 1544
JULY AUG SEPT OCT NOV DEC	366 366 366 366 366 366	365 364 365 366 366 367	74·5 74·5 74·5 75 75 75	235 234 232 220 208 194	77 104 70 32 43 38	1264 1101 969 1286 1090 121 2	637 630 638 641 635 633	1596 1592 1339 1375 1306 1405	526 527 526 525 525 533	1086 864 922 1041 1025 1084	122 34 21 26 32 42	151 120 138 129 133 119	103 101 86 107 119 140	393 491 461 482 376 322	198 272 160 186 192 179	217 190 132 132 101 159	55 82 98 98 98 98	136 156 143 127 156 180	79 116 102 115 96 85	1568 1404 1435 1579 1531 2069	1044 1209 1233 1348 1316 1397
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FINANCE. Exchanges— Industrial Shares—

EXTERNAL TRADE,-

New Capital Issues— Bank of Italy— Other Data—

NOTES AND SOURCES.

Average daily rate (Direzione generale del Tesoro).

Monthly settling prices for shares of 20 industrial companies on the Milan Bourse (Bolletino d lla Borsa di Milano).

Investments in new companies (Confederazione generale bancaria).
Deposits on current account and note circulation at end of month.

Savings bank deposits at end of month.
Clearings—total for month.
Bankruptcies (Boll. mensile dell' Istituto centrale di Statistica—Ufficia Statistica del Consiglio pro vinciale dell' Economia di Milano).

Quantities imported and exported per month (Statistica del Commercio speciale d'importazione e d'esportazione Mro delle Finanze).

Values per month (Boll. mensile dell' Istituto centrale).

WHOLESALE

[Italy EMPLOYMENT.

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649 594 628 504 542 667 610 615 657	9 71 94 80 28 99 04 93	511 548 554 480 433	344 347 367 375	350 351		1	470	438 466	700 687 575 554	798 756 682 721	664 655 636 532	569 548 540 520	556 471 443 439	673 624 569 580	636 575 530 535	825 748 705 706	618 508 532 533	626 584 522 516	114 117 138 179	238 215 287 374
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TRANSPORT. Shipping.-

Railways.—

PRICES WHOLESALE. Ottolenghi.—

Bachi.— PRICES RETAIL.

xx Three types selected from data supplied by the Milan Chamber of Commerce. || Mid 1918. || § 1st half 1914.

* Latest prices are provisional. | Now Ministero delle corporazione. | ‡ Subsequent figures based on movements of new Bachi Index.

Monthly Total of Goods passing through Port of Genoa. (Boll. del consorzio autonomo del Porto di Genova—Boll. statistico del comune di Genova).

Monthly Total of Merchandise sent on the State Railways. (Rivista delle comunicazioni ferroviarie del Ministero delle Comunicazioni).

Wholesale prices of selected commodities at end of month. (Boll. del consiglio provinciale dell'Economia di Milano, e Listino ufficiale della Borsa merci del consiglio provinciale dell'Economia di Genova.).

General index.

General index.

Prices of certain selected goods. (Boll. del lavoro del Ministero dell'Economia nazionale).

Index Nos. of the Cost of Living for working-class families (Boll. delle citta di Milano e di Torino.).

National Insurance. Data for end of month. Series transferred from beginning of month to end of previous month, to correspond with other data. (Boll. mensile dell'Istituto centrale di

UNEMPLOYMENT.

Italy]

But the fall in the adverse balance in Italy is not an immediate sign of improvement, for not a few prosperous years have been remarkable for a considerable adverse balance due to the rise in imports of raw materials to meet increased internal activity. But considered from the aspect of payments, this great reduction in the adverse balance greatly helps to reduce foreign indebtedness, which would depress the lira.

The monthly data for imports and exports, excluding the months of June and December, for which figures are abnormal for technical reasons, show different tendencies, imports falling, exports relatively stationary; but with the general fall in prices there was definitely expansion in quantity, at least in some goods.

Imports.	Quantity. 1930 1931 11 months.		Value 1930 19 11 mont	931
Grain 000 Tons Raw Cotton 000 Quintals Wool , , Machinery , , Coal 000 Tons	1881 1530 421 387 747 433	000 lire	1352 380 741	817 714 246 452 008
EXPORTS				
Cotton Yarns 000 Quintals "Tissues", "," Raw Silk ", "," Artif. , Mn. Kg Citrous Fruit 000 Quintals Motor Cars 000's	379 349 60 53 . 17 21 3634 3560	•••	808 934 495 419	258 576 556 387 371 146

January, 1932.

A feature of the month was the slight rise in the exchange rates. The dollar, which was worth 19.58 lire at the end of December, rose to 19.71 on 19th, but declined to 19.67 at the end of January; sterling rose from 65.86 to 67.87 on 17th and then receded to 66.76; but the franc rose continuously from 77.21 to 78.57, while there was the same tendency in the Swiss franc. The second feature was the appearance of activity on the bourse with a tendency towards recovery from the low levels of the latter months of 1931, and indeed many shares—industrials and

There was a great reduction in grain imports and a large increase in artificial silk exports but at lower prices.

The following table shows the changes in the value of Italy's trade with the chief countries:—

	U.S.A.		Eng	land.	Fra	nce.	Germany.		
Mn. lire 1930 1931		Exp. 1325 841	Imp. 1673 924	Exp. 1185 992	Imp 1504 668	Exp. 1234 976	Imp. 2180 1248	Exp. 1553 940	
(10 mont	hs)								

There was a diminution in transport corresponding to that in commerce. Goods carried on the State railways on private account, including traffic to the ports, according to the estimates of the Director General of Railways, amounted to 44,190,000 tons in 1931, compared with 53,600,000 tons in 1930. And according to the Director General of the Mercantile Marine the total of goods embarked and disembarked during 1931 was 32,437,000 tons, compared with 35,627,000 in 1930.

UNEMPLOYMENT. — Unemployment continued to spread greatly until it reached 982,000 in December, whereas a year before there were 642,000. Of these 236,000 were in agriculture and 303,000 in the mineral industries, building, road making and drainage, and 128,000 in textiles.

others—rose; the index of 20 industrials at 108 in January showed a slight rise over the previous month, but it was a general rise.

As regards wholesale prices in January, the index for the materials group was unchanged at 273, but this was the result of contrary movements in the components, for coal and cotton yarn rose and raw silk and wool fell. In the index for the food group there was a great rise due to grain, which rose to 414 after having fallen to a minimum of 345 in July owing to the forecasts of the new crop. The rise was partly due to tariff policy.

BELGIUM.

Information communicated by l'Institut des Sciences economiques, University of Louvain.

January 29th, 1932.

S elsewhere, from month to month the course of the crisis in Belgium appears more dependent upon the financial events and international exchange difficulties arising from political causes. This impression stands out very clearly in this country, where industrial production had been improving in various directions until the end of the summer and even until October. The renewed fall in prices after some months of relative steadiness and the hindrances to exports have caused the ground gained to be more than lost; the general insecurity has also paralysed many transactions, but that is a factor which expends its greatest force initially.

The state of the free market does not yet indicate any fresh development.

Prices of shares were still falling in the middle of December; the index went from 41 on October 1st to 36 on December 1st. Since then there has been a slight recovery in prices, slow and hesitating, but sure, which brought the index back to 38 on January 4th and will bring it still higher for February 1st. Wholesale prices are still declining, and for nearly all kinds of goods; the index fell to 573 in December from 597 in September On the money market there was an increase in the official discount rate on January 14th, followed by the open market rate. The official rate, which had stood at 23% since August, 1930, was raised to 33%, a level more in accord with the international position, but still sufficiently low not to form any obstacle to the ultimate recovery of business.

The sound financial position of Belgium during recent months, and the security of her currency, made the country a refuge for much capital and consequently the market was well supplied with liquid capital. This was provided

as much by the repatriation of credits held abroad, as by means of savings normally invested abroad but at present retained, and by capital taking refuge from abroad. The result of this movement has been an increase in the volume of credit, sight obligations of the National Bank rising from 16,942 Mn. francs in May, 1931, to 19,309 Mn. on January 21st, 1932. Under existing conditions, there has been no inflationary effect; the volume of business is diminishing and prices linked with abroad are necessarily falling. It is reflected, in spite of a certain hoarding of notes, in the growth in private current accounts at the National Bank, the increase representing the unutilised credit. Current deposits amounted to 686 Mn. francs in May, 1931, rose to 1,366 Mn. in December, but fell again to 886 Mn. in January, 1932.

Not only wholesale prices were affected by the force of external events. The retail price* index fell from 786 in September to 752 in January, but this only partly represents the truth; for this is also the period of the usual seasonal decline. Also farm produce has fallen in value in recent months from the effects of British import duties and French quota regulations. Eliminating seasonal variation the weighted index of the cost of living has fallen 8%—i.e., very rapidly—

in three months.

Industrial production has been seriously affected by the fall in the £, the basis of many export contracts, by the obstacles to international commerce and by the political insecurity. Pig-iron output, which had recovered considerably in the summer of 1930, fell back to a lower level in mid-1931, and was at 74% of the 1928 average in December as compared with 90% in August. Coke output fell correspondingly from 90 to 79% from September to December. The

^{*} Not quoted in table.

Belgium]

rolling mills had not enjoyed the same renewal of activity in 1930 and in recent months output has been at the lowest ebb. Finished steel production fell from 73% of the 1928 amount in August to 57.5% in December. In the coal mines, output did not fall appreciably till December, but the usual seasonal rise in the autumn was not recorded. These facts should be

considered alongside the restrictions involved by the quota system which now prevails in this branch of industrial activity, wherein equilibrium has not yet been attained, for stocks are very great and are still increasing slightly.

It is more difficult to define the situation in other industries, but it may be said that, especially in textiles, October

	SECU	RITY		NATIO	NAL	te.		PRI	ŒS.	IM	PORT	s.	EZ	PORT	8.	OU	TPU	r.	1	
	Share Prices.	Debenture Prices.	New Capital Issues.	Current Deposits,	Note Issue.	Sterling Exchange Rate.	Private Discount Rate.	್ಲಿ Wholesale.	Cost of Living.*	Raw Materials.	Manufactures.	Total (with Food, &c.)	Raw Materials.	Manufactures.	Total (with Food, &e)	Coal Output.	Coal Stocks.	9 Pig-iron Output.	Railway Wagons Loaded.	Unemployment. Days lost per 1,600 workers per week.
	% of 19		Mn. fr.	Mn. fr.	00 Mn.fr	Fr. to £	%	Apr. 1914	% of 1921	M	n, fran	es	M	n. franc	s.	0,000	ons.	tons.	000	No.
	1	z	3	4	0	Ü	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1913				95	9.9	25.33				222	72	421	152	119	309					
1927 1928 1929			504 1021 1229	584 578 498	96 108 127	174·64 174·68 174·51	4·50 4·28 5·15	847 843 851	200 207 220	1268 1381 1540	550 666 800	2428 2630 2960	748 823 884	1281 1475 1574	2225 2512 2686		149 45		491 518	102 111
1929 JAN FEB MAR APRIL MAY JUNE	114	108 109 111 111 111 111	2301 1042 1158 1143 1548 852	579 608 447 467 341 535	120 120 120 123 124 124	174·50 174·61 174·76 174·75 174·76 174·58	4·37 4·37 4·37 4·60 4·90 5·20	867 865 869 862 851 848	217 217 215 214 213 213	1237 1445 1567 1573 1723 1609	662 709 862 818 869 827	2427 2682 3052 2991 3231 3043	822 966 936 913 865 1052	1139 1245 1555 1690 1405 2371	2175 2397 2746 2832 2464 3664	235 220 230 223 221 220	98 77 61 49 41 35	340 324 323 336 337 342	496 431 508 518 512 515	252 389 120 44 33 46
JULY AUG SEPT OCT NOV DEC	98 100 104 91 87 77	111 112 112 112 112 112 111	1671 1086 709 1501 886 833	508 452 478 408 506 650	128 131 132 135 135 135 135	174·53 174·37 174·39 174·34 174·33 174·31	5·25 5·80 5·90 6·03 5·50 5·50	858 850 846 838 834 823	216 223 225 229 229 229 228	1659 1591 1574 1619 1423 1475	824 821 766 867 804 775	3073 3094 2949 3215 2849 2916	837 792 935 937 946 835	1445 1540 1665 1683 1439 1690	2519 2566 2847 2853 2601 2763	214 213 213 211 240 233	32 31 28 28 28 30 32	336 337 347 349 340 329	543 530 513 580 564 507	68 60 62 62 75 130
JAN FEB MAR APRIL MAY JUNE	76 77 67 74 76 72	113 113 114 115 115 116	913 279 193 469 338 316	865 441 383 641 680 686	139 138 145 145 145 146	174.66 174.48 174.41 174.19 174.10 174.09	4·31 4·25 4·21 4·00 3·07 2·92	808 791 774 777 774 750	226 235 229 224 221 221	1429 1290 1376 1379 1368 1206	881 850 907 899 887 745	2943 2712 2899 2856 2874 2496	645 542 886 774 739 688	1384 1136 1651 1597 1401 1143	2211 1814 2766 2545 2295 2015	239 237 224 226 229 205	50 72 110 133 146 159	332 337 331 313 290 265	520 476 503 485 484 443	223 245 197 250 227 196
JULY AUG. SEPT OCT. NOV. DEC.	67 63 62 61 53 56	117 117 118 119 118 119	490 293 161 292 478 350	415 580 556 478 603 635	149 153 154 156 157 158	174.04 174.15 174.27 174.22 174.15 173.85	2·94 2·62 2·60 2·48 2·25 2·63	739 729 712 705 693 679	225 226 227 227 227 227 221	1196 1030 1109 1142 982 1062	784 716 695 735 621 675	2554 2334 2388 2529 2150 2351	734 613 690 692 615 550	1350 1175 1352 1354 1224 1227	2282 1944 2227 2222 2060 1960	212 222 220 230 228 221	172 185 198 222 239 248	252 239 251 241 248 262	459 443 464 507 466 462	256 310 334 388 492 630
JAN FEB MAR APRIL MAY JUNE	55 56 62 58 54 46	120 120 120 121 121 121 122	35 160 370 201 239 145	1230 719 778 840 614 689	163 162 162 163 162 161	174:15 174:23 174:40 174:74 174:78 174:67	2.75 2.55 2.50 2.50 2.44 2.38	661 653 660 652 640 642	217 210 207 205 202 201	977 906 1033 930 1023 840	575 585 680 705 626 606	2063 1971 2309 2233 2111 2002	531 653 779 647 584 603	1043 1135 1196 1201 1101 1188	1764 2001 2158 2024 1861 2029	235 227 232 232 232 210 220	264 271 280 303 310 326	261 257 255 257 262 278	424 396 459 440 416 443	876 980 885 788 650 672
JULY AUG SEPT OCT NOV DEC	55 49 46 41 41 36	119 120 121 117 115 113	184 63 52 56 206	627 1276 1434 1055 1234 1549	166 168 168 179 179 194	174·09 174·25 162·98 138.90 133·55 121·07	2·38 3·09 3·25	635 616 597 591 584 573	201 199 200 199 197 192	895 850 883 902 778	594 565 583 564 498	1986 1856 1943 1957 1821	626 580 710 688 633	1107 1011 1096 1063 993	1954 1773 2002 1955 1819	219 221 218	336 338 336 342 347 354	280 289 284 263 262 237	446 424 445 481	730 810

Dates of Series—Cols. 1, 2, 1st of month; 4, 5, 4th—10th: 6, 7, Average: 8, Average second half of month; 9, 15th; 16, for 25 working days:
18, 30-day month; 19, calendar month.

* Ministry of Labour index for 3rd category budgets-

was relatively satisfactory, November very bad, and since then there has been some consolidation but without any great improvement.

The effect of this situation on the labour market was that unemployment rose rather more than seasonally in October and November: although the complete figures for December are not vet available, it would seem that its gravity was moderated in that month. Days lost by insured workers exceeded 12.5% in August and 15.6% in November. Of 706,000 insured persons (or about half the working class population), there were in November 93,000 wholly unemployed and 135,000 on short time. Wages, which are based upon the cost of living index in some industries (textiles, coal) and which in most others are settled after discussions which centre round the cost of living, have undergone considerable reductions. Agriculture in particular has suffered in recent months from tariff developments. The small farms had held out until now thanks to animal

produce and vegetables; but the prices for these have now been greatly reduced by the closing of foreign markets, while the almost complete absence of protection here causes other countries to export to Belgium the surpluses for which they likewise are deprived of the usual markets.

External trade has suffered from the consequences of the international exchange crisis, attributable to the general crisis, and to the remedies of a nationalist character to which the majority of countries are having recourse. Imports and exports are declining, the former to the minimum previously recorded, and allowing for seasonal variation, exports of manufactures have fallen even lower. The latter evidently feel the reaction of protectionism most rapidly. On the whole, thanks to the fact that our trade has only suffered from isolated impediments to a very limited number of products and that the price level is not now maintained artificially high, our export trade is still relatively better than that of many other countries.

NETHERLANDS.

Information communicated by the Netherlands Central Statistical Office.

REVIEW OF THE YEAR 1931.

January 30th, 1932.

THE recession which began in the latter half of 1929 has lasted, almost without interruption, throughout 1931. Disregarding seasonal movements and minor oscillations, the decline has been remarkably constant in various industries, though differing in extent. The index number of stock prices fell by 55% between 1929 and 1931, and the total decline from February 1929 (when quotations were highest) to December 1931 was 72%. The wholesale price index dropped from 142 to 97, comparing the two years, and to 85 in December. The value of both imports and exports decreased by one-third, the volume of merchandise handled at the ports of Rotterdam and Amsterdam by one-third and one-sixth respectively, and of goods carried by rail by about 12% in a year and three quarters. Monthly clearings by the Netherlands Bank declined from 3,560 Mn. florins in 1929 to 2,460 Mn. in 1931 and 1,760 Mn. in the last three months of that year. Of the workpeople applying at employment exchanges, 21.6% were placed in 1929 as against 10.8% In-1931. At the end of 1931, 246,000 persons were recorded as out of work and by now their number may well have reached 300,000.

There has been a considerable fall in imports of materials for those industries which make production goods (40%). Accordingly, unemployment in the metal trades rose sharply, especially in the latter

Netherlands]

part of the year, and now embraces about one-sixth of those normally employed in the trade.

As a result of the bad state of affairs a serious decline in money incomes might be expected. This has, however, presumably been counterbalanced, in great part, by the drop in prices. Consequently, though some indices of general welfare do indeed show a corresponding decline, others, in particular the volume of imports, do not at all reflect the drop in money income. Imports of food even show an increase, while imports of materials for those industries which work for direct consumption have remained on the same high level since 1929. It should, however, be kept in mind that wages had not yet been seriously affected in 1931.

Under the increasing economic pressure the government of the Netherlands has been forced to follow the lead of many other countries and take, though in a less degree, measures to protect the home market by import duties and restrictions.

Severe as the depression is in this country, the economic situation in the Netherlands may be judged relatively favourable when compared with several other countries. In consequence there has been a considerable inflow of gold, amounting to nearly 500 Mn. florins. The gold stock at the Netherlands Bank more than doubled; on the contrary, foreign bills decreased by about 160 Mn. florins. The unprecedented volume of current deposits is one of the most striking proofs of the prevailing depression.

INDICES OF ECONOMIC POSITION OF INDUSTRY (1925-7, as 100).

	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Wage earners employed** Total wages earned** Purchasing power of total wages* Dividends (48 firms) Exports of finished products	95 115 96 72 59	92 * 101 94 73 69	89 94 9 5 72 74	93 94 95 84 86	97 97 94 87 95	100 100 100 103 99	103 104 106 110 106	110 110 110 136 115	115 117 118 160 118	101 105
Home sales by construction goods industries* ,, consumption of consumption goods ,, sales by capital goods industries* Imports of capital goods (machinery)	86	87	84	87	97	99	105	113	121	126
	91	95	94	93	97	101	103	109	116	121
	62	57	64	78	92	98	111	140	151	154
	107	83	59	75	88	100	112	138	137	111
,, raw materials	62	72	65	80	94	97	109	123	126	115
	74	85	84	89	97	98	105	112	118	110
	70	71	73	83	95	98	107	121	125	121
	70	75	76	84	95	99	106	113	116	115
Imports of raw capital goods industries materials consumption goods industries Total employed capital goods industries	52	58	50	76	92	98	110	135	134	116
	72	86	80	84	96	97	107	110	117	113
	97	84	83	91	96	99	106	125	142	130
	91	89	86	94	97	100	104	108	108	104
Wage earners capital goods industries in** (consumption goods industries	100 87	88 90	83 90	90 92	97 98	99	105	118 107	121 109	101

^{*} Selected Industries, reporting for Production Statistics.

^{**} All industries reporting to State Assurance Bank.

	STOCE	(S & S	HAR	ES.	N	BANK ETHE	OF TE	DS.	MONE	Y		PR	ICES,	TRAI	management of the frames		UT, E	MPLO	YMEN	r.	
	Stock Prices.	Yield on bonds.*	New Capital issues.	Yield of tax on stock	exchange dealings.	Note circulation.	Clearings.	Current accounts.	Bank rate.	Open market discount.	Wholesale prices.	Cost of living.**	Total imports.	Total exports.	Index No. of imported Materials (net).		Exports of finished products.	Goods handled in Port of Rotterdam.	Goods carried by rail (chief stations).	Output of Coal.	Unemployment.§
all and a second	1921/25 =100	0,0	Mn Glâ			M	n. Gld.		%			Oct.23- Sep. 24 =100	Mn.	Gld.	1922/ =10		Mn. Gld.	Mn. tons.	000 tons	000 tons	%
1913				1		316	. !	4.8	4.65		100						1			156	
verage 1925 t Qr.Av. id ,,	93 95 98 104	5·27 4·95 4·76 4·73	20 22 33 25	3	6	890 2 877 2	2489 2695 2675 2557	56·1 44·6 26·6 36·8	4		158 152 155 154	83·9 83·8 83·6 82·9	204 292 204 220	141 139 171 151	123 118 110 123	3	49 51 55 53	3·96 4·19 4·87 4·26	303 283 354 408	526 517 603 638	10·3 6·1 6·9 9·3
1926 st Qr.Av. ad ,, rd ,,	104 100 102	4·67 4·66 4·61 4·67	31 29 41	4	18 33 15	819 820	2604 2762 2871 3358	59·0 34·6 49·2 30·1	3·5 3·5 3·5 3·5	2·67 2·89 2·78 3·15	149 143 140 146	95·7 96·8 93·0 95·0	205 202 203 203	132 132 160 160	12 12 12 12	6	51 49 53 49	4·29 5·10 6·57 6·63	426 409 538 485	643 685 769 787	10·2 5·2 5·9 8·0
1927 st Qr.Av ad ,,	103 . 108 110 111 117	4·74 4·74 4·68 4·72	41 39 3 33) 5	59 46 46 44	793 799 797	3243 3452 3168 3678	26.6 33.6 31.5 33.0	3·5 3·5 3·5 4·37	3·32 3·47 3·51 4·34	145 146 150 151	94·2 94·8 94·7 96·0	201 208 216 224	144 155 169 166	14	5	52 55 60·2 64·8	6·16 5·93 6·32 6·24	390 389 413 467	742 730 806 829	8.4
th ,, 1928 st Qr.Av nd ,, rd ,,		4·6· 4·6· 4·6· 4·6	1 58 5 46 3 28	3 1 9	63 76 45 64	776 789 798 821	3682 3392 3299 3370	43·9 39·8 39·9 36·0	4·5 4·5 4·5 4·5	4·02 4·17 4·18 4·37	152 153 146 147	95·8 96·5 95·8 95·1	227 221 225 222	155 156 180 172	10		64·7 65·3 67·3 70·0	5·68 4·92 5·53 5·26	. Maria	908	3·7 3 4·0 6·1
th ,, 1929 AN YEB MAR APR MAY	121 124 123 119	4.6 4.6 4.7 4.8 4.8	2 5 5 9 3 2 3 1	9 1 0 5	64 60 57 69	789 775 783 803 809	3816 3576 3835 3843 3621	40·3 28·6 11·5 15·9 15·7	4·5 4·5 4·73 5·5 5·5	4·19 4·35 4·61 5·34 5·33 5·38	146 146 147 144 142 141	}95·4	233 178 216 234 236 230	15: 12: 17: 16: 17: 16:	4 1 5 1 9 1 5 1	51 40 40 50 71 80	68·1 55·1 77·1 74·9 78·8 75·6	5·19 3·86 2·76 5·37 7·66 6·24	586 598 479 45	829 929 930 7 94	9 17·2 4 13·0 8 2·8 8 2·4
JUNE JULY AUG SEPT OCT NOV	117 116 117 117 100	4.	79 2 78 31 3 79 6	9 5 14 53 17	57 60 82 95 117 55 29	789 813 803 813 816 831 818	3236 3757 3416 3381 3798 3381 3102	12·1 14·6 15·4 12·4 25·4 20·3 21·8	5.5 5.5 5.5 5.5 4.75 4.5	5·17 5·05 5·36 5·15 4·24 3·50	141 142 141 140 137 135	94-8	240 247 232 258	17 18 18 18 18 16	0 1 3 1 3 1 5 1	77 65 63 60 64 67	76·7 78·6 69·5 77·6 70·7 64·8	6:63 6:43 6:26	465 45 5 52 5 50	3 98 1 95 7 107 2 100	4 2:5 8 2:5 1 2:7 2 4:2 8 9:8
DEC 1930 JAN FEB MAR APRIL MAY	100 101 98 100	4· 4· 4· 4· 4· 4· 4·	71 71 67 68 64	42 59 53 50 38	17 68 40 48 40 37	798 786 791 813 816 807	3505 3062 2973 3216 3462 2471	24·7 18·2 17·7 16·5 26·2 41·6	4·25 4 3·49 3 3	2·93 2·78 2·55 2·43 2·24 1·85	118	92.2	227 204	15 14 15 12 11 13	56 12 51	168 160 159 154 163 159	66.3 69.1 73.5 64.1 67.9 55.6	4·8: 5·6' 4·8! 4·8!	1 42 7 44 9 41 6 43	9 98 9 99 6 97 6 10	35 9.8 97 6.7 17 5.4 17 4.8
JUNE JULY. AUG SEPT. OCT NOV	8 7 7	1 4 ⁻ 7 4 4 4 4 4 4 4 4 4	56 52 49 46 51	57 35 18 18 11 73 44	37 32 37 47 38	807 804 812 817 826	3685 2772 2832 3053	15·2 24·5 13·1 54·2 30·5	3 3 3 3 3	1.91 1.83 1.97 1.58 1.27	114		198	$egin{array}{c c} & 1 \ \hline \end{array}$	53 47 51 26	151 134 123 122 127 132	62·1 59·0 56·1 62·7 52·1 51·6	5·2 5·1 7 5·3 L 4·2	0 41 1 43 1 4' 25 4'	.5 10 37 10 71 11 75 9	10 5 ¹ 52 6 ¹
DEC 1931 JAN. FEB MAR. APRII MAY.	6 6 6	54 4 59 4 59 54 57	·50 ·49 ·46	8 13 33 17 75	31 45 40 50 41 23	814 9 807 9 818 L 826 3 848	3074 2609 2850 3023 3023	22:3 28:2 1 18:3 1 17:0 1 17:0	2·87 2·5 2·5 2·5 2·5 2·24	1:35 1:10 1:10	7 10 1 10 2 10 9 10 0 10	4	16) 1 7 1 9 1 1 1		138 136 136 136 134 130	50° 49° 48° 47° 43° 39°	4 3.8 1 3.9 3 4.4 5 3.9	31 4 92 4 49 4 87 3	00 9 37 10 33 10 79	058 19 938 18 077 17 060 11 997 9 106 9
JUNE JULY AUG. SEPT OCT. NOV. DEC.		52 55 49 39 38 40 34		26 20 2 	41 16 3: 3: 2:	1 922 6 935 1 989 1 1047 6 1038	2 248 5 172 9 195 7 200 3 159	3 80° 1 170° 8 174° 6 170° 4 188°	3 2 5 2 8 2:05 6 3	1:4 1:2 1:0 2:7 1:6	8 9 1 9 4 8	97 94 85 91 89 89 89 85	16 14 15 16 14 14	8 3 0 0	115 107 120 111 101 81	126 123 117 119 117 119	42 44	6 3· 1 3· 8 4·	77	401 1 432 1	167 10 068 1 121 1 1156 1 1085

^{*} State and community, actual figures. ** Amsterdam. + Without gold and silver, bullion and cash. + Last month of Quarter. \$ Number of days worked divided by total number of possible working days of the workers covered in the investigation. I Excluding Pottery and Agriculture.

ROYAL ECONOMIC SOCIETY

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- No. 24. Stocks of Staple Commodities, by J. M. Keynes, J. W. F. Rowe and G. L. Schwartz. October, 1930.
- No. 25. Report on Current Economic Conditions. October, 1930.
- No. 26. Report on Current Economic Conditions. January, 1931.
- No. 27. REPORT ON CURRENT ECONOMIC CONDITIONS IN EUROPE. February, 1931.
- No. 28. A New Index of Prices of Securities, by A. L. Bowley, G. L. Schwartz and K. C. Smith. February, 1931.
- No. 29. Studies in the Artificial Control of Raw Material Supplies, No. 2. Rubber, by J. W. F. Rowe. April, 1931.
- No. 30. REPORT ON CURRENT ECONOMIC CONDITIONS. April, 1931.
- No. 31. REPORT ON CURRENT ECONOMIC CONDITIONS. July, 1931.
- No. 32. REPORT ON CURRENT ECONOMIC CONDITIONS. October, 1931.
- No. 33. Report on Current Economic Conditions. January, 1932.
- No. 34. Studies in the Artificial Control of Raw Material Supplies, No. 3. Brazilian Coffee, by J. W. F. Rowe. February, 1932.

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MEMORANDUM No. 36

REPORT ON CURRENT ECONOMIC CONDITIONS

April, 1932

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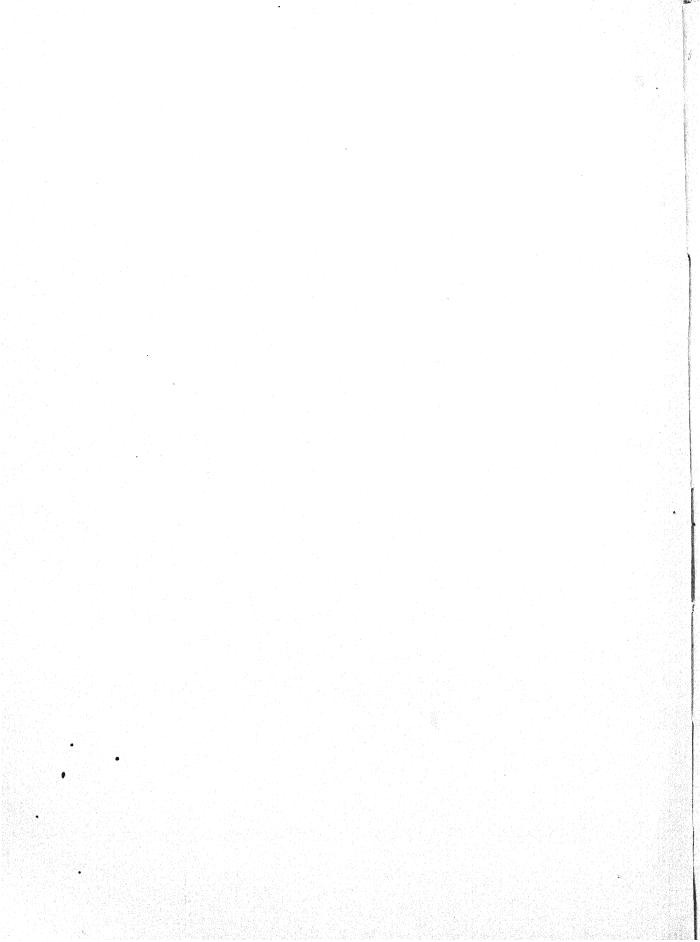
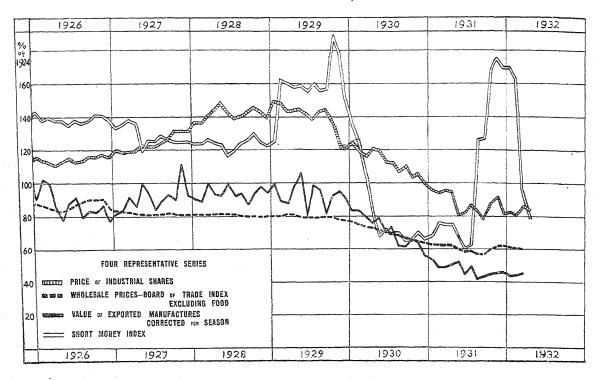


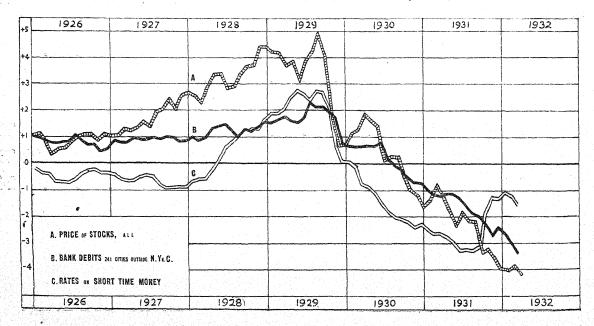
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INDEX CHART, U.K.



HARVARD INDEX CHART, U.S.A.



THE GENERAL BUSINESS POSITION.

UNITED KINGDOM.

April 20th, 1932.

The industrial position as shown by the statistics of the first quarter of 1932 has some favourable symptoms, particularly when March is compared with February. Unemployment has decreased in general about as much as is expected in a normal year at the end of the winter, and more than usual in textile and other industries where many women are employed. The index of production for the quarter shows some increase, in spite of depression in shipbuilding, coal and some other industries, and is 7% higher than a year ago. There has been an increase in exports of some commodities and to some countries, though in the aggregate exported manufactures are little greater than in February. The sterling value of all exports of British Produce is only 10% lower than a year ago, which is an improvement relatively to previous months. The feeling of stability is fairly widespread.

That we can find even these moderate signs of progress is remarkable in face of the continued and perhaps accentuated worldwide depression, in which the only favourable features are the improving financial positions of Australia and India. Unemployment abroad shows little diminution, if indeed it has not increased, while the lack of purchasing power continues. There is no certainty that gold prices have reached their minimum. In this condition, improvement in the United Kingdom must continue to be hesitant, especially in the export industries, and no rapid development of enterprise is to be expected, even with the assistance of cheap money.

UNITED STATES. HARVARD FORECAST. (By Cable.)

April 16th, 1932.

The money curve declined again in March, rates falling moderately, whereas the seasonal movement is moderately upward. The decline reflects a continued improvement in the banking situation which is indicated by increased gold holdings of the Reserve Banks, the return of money from circulation and the horizontal movement of bank deposits, following the sharp shrinkage earlier in the year. Last month's decline of the speculation curve brings the curve to a new low level. This means that although the

movement of the money curve is favourable, the index chart does not give a forecast of business recovery. The sharp decline of the business curve reflects continued business depression. The improvement in the banking situation is the only significant favourable development of the month, but it is a condition precedent to improvement elsewhere. Business improvement is retarded greatly by the continued lack of confidence, which has been increased by recent developments in the financial legislation proposed at Washington.

FOR NEW TABLE OF U.S.A. STATISTICS, see page 24.

RECENT MOVEMENTS OF SUBSIDIARY SERIES.

UNITED KINGDOM.

March, the prices of industrial stocks have fallen 4% as measured by the index, which, however, remains higher than in December, January and February. Fixed interest securities have appreciated 1% to the level of last June. The index has risen 12% in the past six months, which corresponds to a fall of the rate of interest on new purchases from about 5 to 4½%. The short money index fell in the latter part of March; and after the reduction of the Bank Rate to 3% on April 21st has fallen further.

The statistics of the clearing Banks show little change, except a reaction in the totals of deposits and discounts. It is noticeable that Bankers' Deposits at the Bank of England have risen—over twelve

months from f_{59} Mn. to f_{73} Mn.

Town Clearings are rather stagnant. Country Clearings have risen to just over the level of March, 1931. Provincial Clearings as shown in the Table have increased, and reached the figure of January, 1931.

For Lancashire and Yorkshire the

figures are:

		1931	1932					
	Feb.	Mar.	Oct.	Feb.	Mar.			
	23.3	24.7	29.1	22.7	25.6			
•••	37'9	41.9	42.0	42.5	42.5			
•••	3.1	3.3	3.2	3.6	3.4			
•••	3.8	3.5	4.0	3.5	3.8			
		23·3 37·9 3·1	Feb. Mar. 23·3 24·7 37·9 41·9 3·1 3·3	Feb. Mar. Oct. 23·3 24·7 29·1 37·9 41·9 42·0 3·1 3·3 3·5	Feb. Mar. Oct. Feb 23·3 24·7 29·1 22·7 37·9 41·9 42·0 42·5 3·1 3·3 3·5 3·6			

New Capital Issues are again at the moderate level of February, which is a considerable improvement over the seven previous months.

GOLD.—

NET IMPORTS (+) AND EXPORTS (-) OF GOLD, U.K.

Coin and Bullion. £000.

	1928	1929	1930	1931	1932
January February March April May' June July August October November December	- 1848 - 6118 - 4054	- 3297 - 1857 + 3696 + 2654 + 4856 - 3887 - 16008 - 8641 - 4722 + 369 + 1727 - 10049	+ 5260 + 1004 + 5226 + 5736 - 3236 - 1420 - 3228 + 578 + 430 + 2191 - 404 - 7271		— 4338 — 1440 + 327
	-12715*	15161	+19415	-3 2 273	- 5451

^{*} Including special transfer of £19 Mn. to France.

In March, the official figures of Gold Imports totalled £13,043,000 and Exports £12,716,000, giving an apparent net import of £327,000. As mentioned our March Bulletin, however. sovereigns included in the above totals are valued in the official trade returns at face value, whereas bullion is valued at market price. If imports and exports of sovereigns are re-valued roughly at the market value of their bullion content. the March figures show, approximately. £13,105,000 and £14,113,000, giving a net export of £1,008,000.

The corrected figures for net imports (+) and exports (-) of gold since October

last are as follows:— (£,000)

The estimated real total of the net exports since the end of September is £21,608,000 as compared with the total from the official figures of £18,814,000, practically the whole of the difference occurring in 1932. In consequence of this adjustment, the total excess of imports, shown in the Summary of Quarterly Statistics published on p. 8, is reduced from £81 Mn. to £78 Mn. for the first quarter of 1932.

During March the inflow of gold from India continued, £6,167,000 being received from that source, or 47% of the total imports, compared with £5,226,000, or 40%, from South Africa. Exports continued to flow principally to France, which took £9,749,000, or 76.5% of the total exports. The above figures are not adjusted.

Official returns for the fortnight ending April 14th show imports of gold totalling £6,846,000, and exports £2,756,000, or a net export of £4,090,000. £4,190,000 came from South Africa and £2,322,000 from India, while France took £2,611,000.

PRICES AND WAGES.—Sterling prices of commodities as measured by the Board of Trade's monthly figures, as a

whole moved very little from December to March. A small increase in food prices in March nearly balanced a reduction in prices of materials. But the *Statist* index number for the end of March shows a general fall of 3% from the end of February. Since the fall occurs nearly equally in all groups, it is suggested (*Statist*, April 16th, p. 598) that it is connected with the rise in the gold value of sterling. The fall in the prices of some commodities has continued, and on April 16th an index based on 12 important materials showed a decrease of 12% in eight weeks, during which the gold value of sterling rose 9%.

Irving Fisher's index number of commodity prices for the United States is 93.5, 92.4, 91.2, for the last weeks of January, February and March respectively, and 90.5 for the second week of April. The table of Stocks of Commodities (p. 12) does not suggest relaxation of the movement.

The fall of gold prices in the United States from September 1931 to mid-April 1932 may be estimated at $9\frac{1}{2}\%$, while the rise in sterling prices in the United Kingdom in the same interval is about 5%. In the same interval the pound depreciated about 22%.

Retail food prices have followed their usual seasonal course, and there has been no significant change in wage rates.

TRADE AND OUTPUT.—The value of imports of manufactured goods increased from £13.3 Mn. in January to £20.1 Mn. in February and diminished to £13.0 Mn. in March. In 1931 the average for the three months was £20.7 Mn. The decrease in the three months taken together from 1931 to 1932 was especially marked in pottery, etc., iron and steel manufactures, cutlery and hardware, and all textiles and apparel. In the case of all these commodities (except wool and silk) there was an increased import this year from January to February and a decrease in March.

The value of imported materials increased in March. In fact, owing to increased imports of cotton and hides and skins especially, the value of materials

imported and retained was 6% greater in the first quarter of 1932 than that of 1931.

Exports as a whole were of very nearly the same value in March as in February, but exact comparison is difficult owing to the occurrence of Easter. There was increased export of iron and steel manufactures, of cotton goods, and in some other classes, but no marked change. The sterling value of exported manufactures this March was only $5\frac{1}{2}\%$ less than in March, 1931, in spite of the occurrence of the Easter holidays in March this year but in April in 1931. The gold value was of course considerably lower this year.

Exports of food, etc., and of coal were lower in value this year than last.

The output both of iron and steel fell in March, perhaps owing to extended Easter holidays.

UNEMPLOYMENT.— The paragraphs relating to unemployment on pages 83 and 86 of the March Bulletin were erroneous, and apology is due to the Ministry of Labour for the implication that they had used a method of computation which might result in misleading inferences. As regards the comparison of the number of insured persons unemployed (p. 83), instead of there being an actual increase from January to February, there was a very slight diminution, for the number in January should have been stated as 2,920,000 (instead of 2,866,000 on p. 86) against 2,910,000 in February. Further, in computation of the number of persons at work, correction for the number whose insurance had lapsed had been made by the Ministry, and it was only the writer of the paragraph who was misled.

The whole statistical position is cleared up in an article in the Ministry of Labour Gazette, April, 1932, pp. 128-9, from which and from earlier statements the following table is compiled. The figures relate to Great Britain only. Northern Ireland in July, 1931, accounted for only about 2% of the whole number insured.

The numbers insured in Great Britain are estimated by adding each month

25,000 persons to the mid-year count, and then subtracting the estimated number of books which have reached the dead file in consequence of the legislative changes in recent years. The numbers unemployed are those whose books are in the live or the two months' file at the Labour exchanges (those in the dead file are excluded) and in 1932 are modified by the addition of 11,000 dock-labourers, who would have been counted as unemployed in 1931.

The figures for the past 14 months

are then as follows:-

INSURED AND EMPLOYED PERSONS IN GREAT BRITAIN. (000's).

Insured, allowing for normal growth.	Excess in dead file.	SUBTRACT. Sick or involved in trade disputes.	Recorded un- employed.	Number in employ- ment.
1931 Feb. 12380 Mar. 12410 April 12440 May 12460 June 12500 July 12525		437 440 443 442 441 460	2617 2587 2515 2502 2633 2732	9326 9383 9482 9516 9426 9333
Aug. 12550 Sept. 12575 Oct. 12600 Nov. 12620 Dec. 12640 1932		447 445 441 443 445	2738 2804 2723 2667 2602	9365 9326 9436 9510 9593
Jan. 12665 Feb. 12690 Mar. 12715	54† 90† 118	451 444 442	2795* 2753†* 2606†*	9365 9403 9549

*Including 11,000 dock-labourers who would have been counted as unemployed on the basis of the 1931 figures.

†The cause of the mistake in last BULLETIN was in taking numbers similar to those in col. 2 as additive, whereas the 90,000 includes the 54,000.

The number of sick is taken as 3½% of the number insured. The number affected by trade disputes was 21,000 in

July and smaller in other months.

The excess in the "dead" file is estimated as follows. The additions to this file in January, February and March, 1930, taken together were 78,500 men and 135,500 women. The average monthly addition in the first ten months of 1931 was 16,000 men and 16,000 Hence it is estimated that 30,500 men and 87,500 women, or 118,000 in all, were added owing to the effects of recent legislation, by the end of March, of which 54,000 had accumulated in January. and further 36,000 and 28,000 in February and March.

It is noticeable that much the greater part of this total is due to women, and of these women it may be computed that at least 80% were married.

The increase in the number of insured persons in the 12 months, July, 1930, to July, 1931, was 3%, and nearly as high a rate has been assumed since. This is remarkable, since the population of Great Britain is now only increasing at about ½% per annum and it has been estimated (The Banker, 1929, p. 146) that the increase in the number of persons between the ages of 14 and 65 would from 1928 to 1931 be at only the same rate When the Census statistics of 1931 are available it will be possible to analyse the details of this difference, which has persisted in a modified form for some time. Meanwhile it should be noted that the existing estimate is provisional, and cannot be substantiated till after the exchange of unemployment books next July.

It is difficult to decide the best basis for computing comparable percentages of unemployment in the past few months.* The simplest method is to restore the excess number in the dead file to the number insured and to the number unemployed (though it is not certain that they are all unemployed). We thus obtain for the *United Kingdem* the follow-

ing Table.

	No. insured	Number	4		
	or lapsed.	unemployed.	1 %	Unempl	oved.
1931	000's.	000's.	All.	Males.	Females.
Sept.	12845	2880	22.4	23.5	19.6
Oct.	12870	2793	21.7	23.4	17:3
Nov.	12890	2735	21.2	23.4	15.7
Dec.	12915	2680	20.8	23.1	14.9
1932					
Jan.	12940	2920	22.6	25.0	16.5
Feb.	12965	2909	22.4	25.0	16.0
March	h 12990	2789	21.5	24.1	14.7

There is a considerable element of estimate in these figures, but it is believed that they give a true picture of the movement of unemployment in insured industries. Very little is known of the position of persons in uninsured occupations or not connected with any industry at all.

The improvement of employment from February to March is partly seasonal. It is not possible to estimate closely any normal seasonal movement, since a good deal depends on the weather in each year. To get a year for comparison we must ignore 1927 when the

^{*} The figures in the usual table, p. 23, are as given in the Ministry of Labour Gazette, unadjusted, and similarly with the details in the table above.

aftermath of the coal stoppage still had effect, 1929 when there was a prolonged severe frost, 1930 when the present trade depression was first effective, and 1931 when its influence was not measurable. But a valid comparison can be made with 1928, and in the adjacent table the more important industrial groups where there was a definite change from February to March in 1928 are selected.

For men the movements are similar in the two years except for a larger fall in unemployment in textiles, and a different movement in shipbuilding. For women the actual reduction is greater throughout in 1932 than in 1928, and there has been a general reduction in the ratio 10 to 9.

The recent improvement was greater in the North West and in Wales than in other districts. NUMBERS OF INSURED PERSONS UNEMPLOYED. 000's. UNITED KINGDOM.

•••	•	01111	UL 1111	TODODE.		
		1	928	19	932	
		Feb.	March	Feb.	March	
		M	ALES.			
Minion.				707.7	700 7	
Mining	• • •	225.8	209.3	323.3	309.7	
Pottery, &c		5.5	_4.5	11.1	10.4	
Metal Mfrs		59.4	55.5	123.6	121.1	
Vehicles	• • •	21.3	19.3	68.9	62.3	
Ships		43.6	46.4	115.5	113.7	
Textiles		45.1	44.8	120.6	113.2	
Clothing	•••	15.2	12.6	39.3	38.3	
Food, &c		23.0	21.4	46:0	44.7	
Bricks and Timber		24.5	21.7	63.7	60.8	
Building		121.8	90.7	278.7	248.1	
Public Works		35.2	31.5	102.1	101.3	
TN2-4-31 - 11		105.2	102.5	194.0	192.8	
O4F ()	•••					
Other Groups	•••	299.9	284.0	813.2	794.8	
			-			
Total		1026	944	2300	2211	(2225*
		FEN	IALES.			
Pottery, &c		5.6	4.5	14.6	12.5	
Metals, Engineering		0 0	. + 0	14 0	12.0	
Vehicles, &c		19.7	18.4	48.8	44.0	
	• • • •	61.1	60.9			
Clathin -	• • • •			167.9	148.3	
Clothing	•••	20.6	13.7	50.7	38.7	
Food, &c	•••	19.8	18:7	33.3	30.4	
Distribution	***	31.1	27.5	78.6	70.1	
Other Groups	•••	43.8	39.8	115.1	105.2	
Total		202	183	509	449	(463*)

^{*} Allowing for increase of dead file.

FINANCE, TRADE AND PRODUCTION IN THE UNITED KINGDOM IN THE FIRST QUARTER OF 1932.

NINANCE.—The financial statistics as a whole indicate favourable movements during the first quarter of 1932, though the apparent position at the beginning of 1931 has not been regained. Town bank clearings have been considerably above the very low level of the previous quarter, country clearings show little change, while provincial clearings have risen nearly to the level of a year before. The price of industrial securities has fluctuated within narrow limits. The Bank Rate was reduced from 6% to 3½%, while the short money index has been halved, and is little higher than a year ago. The index of prices of fixed interest securities appreciated 15% in three months, and has been as high as at any date in recent years. Bankers' advances have remained at the level of the previous quarter. New capital issues have ceased to be of insignificant dimensions. The pound sterling appreciated in terms of dollars more than 10% during the quarter, and at the end was at 78% of its par value.

PRICES AND WAGES.—Sterling whole-sale prices of materials have fallen very slightly during the quarter, while those of food have oscillated with an upward tendency. Meanwhile dollar prices have fallen about 6%. Retail food prices have followed their normal seasonal course almost exactly. There have been some slight reductions of wages, but the index number has fallen less than 1%. Altogether the stationariness of prices and wages has been very marked in this country.

Trade and Output.—Imports of food have been maintained throughout the depression at nearly constant amounts each quarter, after allowance is made for

SUMMARY OF QUARTERLY STATISTICS.

ы май жанды байда боорог и такта колдуу ит у отоо он боого жанаа колон да ийүн жүн отоо он боого бараа коло бүрөө		1929			19	30			19			1932
TOTALS,*	2nd Qr.	3rd Qr.	4th Qr.	lst Qr.	2nd Qr.	3rd Qr.	4th Qr.	lst Qr.	2nd Qr.	3rd Qr.	4th Qr.	lst Qr.
BANK CLEARINGS: Town (ex Metropolitan) Country Provincial (11 Towns)	£ Mn. 9514 769 387	£ Mn. 9941 757 38 6	£ Mn. 10165 790 399	£ Mn. 10292 771 385	£ Mn. 9782 742 333	£ Mn. 9529 720 311	£ Mn. 9180 730 319	£ Mn. 9079 717 319	£ Mn. 8745 677 287	£ Mn. 7932 664 285	£ Mn. 6060 694 308	£ Mn. 6493 689 318
BANKERS' ADVANCES: Average for Quarter NEW CAPITAL ISSUES in Gt. Britsin:	980	979	971	973	962	938	920	913	917	897	890	889
All For United Kingdom IMPORTS RETAINED:	81·3 55·1	28·4 17·5	29·7 17·8	69·5 36·3	72·4 37·4	28·0 19·0	66·3 34·7	45·4 21·2	25·5 6·7	8·2 5·2	9·6 9·5	27·0 20·5
Food, Drink and Tobacco Materials:	120	126	139	114	108	107	123	93	94	96	113	91
Partly Manufactured Cotton Other Total Wholly Manufactured Goods Total Retained Imports	13 15 53 80 66 268	12 9 53 74 65 268	14 24 54 92 65 29 9	11 16 51 78 64 259	10 9 43 62 65 233	9 5 42 56 60 225	9 12 35 57 58 240	8 7 32 47 50 192	8 6 29 43 50 190	7 4 29 40 52 191	9 9 31 49 60 225	6 8 33 48 36 177
EXPORTS, BRITISH: Materials Manufactures—Cotton Other Total British Exports	21 33 107 178	19 34 112 185	20 31 113 186	19 30 98 164	16 22 88 141	15 19 86 136	15 16 80 129	12 15 63 103	12 13 58 96	11 14 57 93	12 14 56 97	11 17 54 92
EXCESS OF IMPORTS: Goods and Bullion	93	55	125	106	94	87	106	82	114	65	115	81
TONNAGE OF SHIPS (with cargoes): Entered from abroad Cleared for abroad	1589 1728	0000 Ton 1775 1863	s 1590 1723	1392 1610	0000 1659 1656	Tons 1756 1738	1565 1581	1329 1358	0000 1528 1477	Tons 1667 1541	1505 1458	1300 1292
PRODUCTION: Coal (15 weeks) Pig-iron (3 months) Steel , , , Shipbuilding (commenced)	6265 192 248	0000 Tons 6284 202 241 000 Tons 360	6701 196 237	7014 192 237 427	5911 180 199	Tons 5634 133 165 Tons 161	6164 115 128 132	5948 101 139 33	5479 99 126	Tons 5111 84 119 - Tons 39	5801 91 134 105	5750 99 137 26
INDEX OF PRODUCTION: Bulletin % of 1924 Board of Trade ,,	111·0 112·0	108·2 110·7	114·8 114·0	109·6 111·0	100·9 103·1	90·7 99·5	92·7 99·0	85·1 95·0	80·6 91·9	81·1 89·3	90·5 96·8	91.4

^{*} Except Bankers' Advances, for which mean weekly averages are given.

INDEX NUMBERS.	Date in		1929			19	930			193	31		193
Percentage of 1924 level.	Quarter	2nd Qr.	3rd Qr.	4th Qr.	lst Qr.	2nd Qr.	3rd Qr.	4th Qr.	lst Qr.	2nd Qr.	3rd Qr.	4th Qr.	1st Qr.
PRICES OF COMMODITIES— General—Board of Trade Statist	Last month Last day	81·6 81	81·7 81	79·7 78·5	74·9 74	72·6 69	69·5 65	65·5 62·5	63·7 61·5	62·1 59·5	59·7 58	63·7 61·5	63· 60·
Materials—Board of Trade Statist	Last month Last day	79·1 80·5	79·5 79·5	77·1 76	73·4 72	70·4 66·5	67·0 62·5	63·3 59	62·1 58·5	59·1 56	57·0 55	61·5 58·5	59· 5
Food—Board of Trade	Last month Last day	86·2 83·5	85·8 83	84 ·6 81	77·7 76	76·6 72·5	74·4 70	69·8 67·5	66·8 66	68 ·1 65	64·9 63	67·8 65·5	69 65
Retail—Food Cost of Living	Last day	87·5 92	91·5 94·5	92 9 5	84 90	83 88·5	84 89	81 87·5	76 84	76 84	75 8 3	77 84	82
- Wage Rates	Fortnight after end	99.5	99	99	98.5	98∤	984	984	.97	97	96₺	964	- 98
PRICES OF SECURITIES— Industrials Fixed interest SHORT MONEY	" " " "	136 96·0 160	135 93·9 189	124 95·5 136	120 10 0 -3 82	112 99·7 6 9	103 101·3	96 103·5 68	94 100·2 75	. 86 101·5 62	87 92:6 168	82 93*4 169	

seasonal influences. Their value in the first quarter of 1932 was nearly the same as a year earlier. Similar remarks apply to raw materials as a whole, excluding cotton. The quantity of raw cotton imported was 22% greater than in the first quarter of 1931.

The imports of manufactured goods have of course been affected by the expectation of tariffs and their subsequent establishment. In the six months from October, 1931, to March, 1932, the value of such imports retained was £96 Mn., as compared with £108 Mn. a year earlier, and £129 Mn. a year before. Part of the last named reduction is of course due to a fall of price. The statistics for separate months are discussed on p. 5.

The total value of exports of British produce in the first quarter of 1932 was 5% lower than in the previous quarter and 11% lower than a year ago. The fall has not been uniformly distributed among commodities.

EXPORTS OF BRITISH PRODUCE. &Mn.

	1930	1931	1931 1 93 2	
	4th Qr.	1st Qr.	4th Qr. 1st Qr	r.
Coal	10.7	8.3	9.1 7.5	
Ships	6.4	2.4	0.5 0.3	
Cotton manufactures	16.2	15.2	13.9 16.7	
Wool, other textiles & apparel	16.6	15.0	12.7 13.2	
Other commodities	79.7	62.4	60.9 54.6	
Total	129.6	103.3	96.8 92.3	

The detailed tables on p. 11 show that when comparison is made with the first quarter of 1931 exports of several commodities have increased, and the variation is considerable as between countries.

The Board of Trade estimates* that net imports, when re-valued at the average prices prevailing in 1930, would have been worth £226 Mn. in the first quarter of 1932 and £228 Mn. in 1931, as compared with £241 Mn. in 1930. Corresponding figures for exports of United Kingdom produce are £109, £111 and £159 Mn. respectively. For the first quarters of 1931 and 1932 the estimates for imports of foodstuffs rose from £110 Mn. to £116 Mn., and for materials from £51 Mn. to £58 Mn., while those of manufactures fell

The reduction in shipping tonnage cleared as well as entered with cargoes in the past quarter is notable.

While production of steel differs little from that in the previous quarter or in the first quarter of 1931, and the tonnage of shipbuilding commenced or under construction has fallen to a very low level, the general index of production is 7% higher than a year before, and 1% higher than in the autumn quarter. The increases in the twelve months are to be found principally in the textile group and also in paper (see p. 14).

Unemployment.—The detail of the recent unemployment is discussed on p. 5, but the following table affords an interesting general view. The whole insured population has increased with the natural increase of the number of adults aged 16 to 65, which is very little affected as yet by the war and post-war fall in the birth-rate and other causes. Administrative changes from time to time have affected the exact comparability of the figures, especially in the unemployed column. In particular, nearly 120,000 should apparently be added to the 2,595,000 recorded as unemployed in March, 1932, for comparison with the figure for the previous December.

There is always a diminution of employment after December, and normally an improvement in February and March.

INSURED PERSO			Registered
	At Work.	1	Jnemployed.
1930-March 24th .	1899		1641
June 23rd .	9849		1851
Sept. 22nd	9679	444	2117
	9475	•••	2411
1931-March 23rd .	9383		2587
	9426		2633
Sept. 21st .	9326		2804
	9593	•••	2602
1070 37 1 03 1	9549		2595

Thus the estimated number at work decreased throughout 1930 and the first quarter of 1931, and increased temporarily in the second quarter of 1931, as is normal to the season. The detail of the last six months is shown on p. 6.

from £65 Mn. to £50 Mn. Exports of manufactures are valued at £84 Mn. and £85 Mn. for the two quarters.

^{*} See Board of Trade Journal, April 21st, 1932, p. 548.

TABLE A. NET IMPORTS OF RAW MATERIALS (EXCLUDING RUBBER) AND CERTAIN PARTLY MANUFACTURED GOODS. DECLARED VALUES. £ Mn.

	1924. Quarterly Average.	2	1929 Quarters	3. 4	1	_	930. rters.	4	1		931. rters, 3	4	1932. Qr.
Pig iron, etc Copper, tin, lead, zinc Yarns Leather	1·8 5·4 1·8 2·9	1·4 6·2 2·1 3·1	1·3 5·4 2·0 2·9	1·4 5·8 2·1 4·8	1.6 5.0 1.8 3.0	1·2 4·6 1·5 2·9	1·2 3·9 1·3 2·8	1·3 3·4 1·6 3·1	1·0 3·1 1·3 2·3	·9 3·4 1·2 2·5	-9 2·6 1·1 2·4	1.4 2.8 1.6 3.5	.8 2.7 .5 2.4
Minerals (non-metals) Iron Ore Other Metals Wood Oil Seeds, &c. Hides Paper Materials Silk	1:3 2:1 3:7 12:6 12:1 2:0 2:9	1·3 1·5 5·1 7·8 10·7 ·9 3·4	1.5 1.8 3.7 17.4 9.7 2.9 3.4	1.4 1.8 3.9 13.9 9.8 2.5 3.7	1·3 1·7 3·7 6·9 9·1 2·7 2·9	1·4 1·6 3·6 9·0 9·2 ·8 3·2 ·3	1·2 1·0 2·5 15·4 7·3 1·9 3·0 ·2	1:0 :9 2:3 11:0 6:8 :9 3:0	1:0 :7 1:8 4:2 6:6 :9 2:3	.9 .7 2.0 5.4 6.9 .0 2.0	.9 .5 1.5 11.2 5.3 1.2 2.6	.9 .5 1.7 8.0 5.3 1.2 3.0	1.0 6.7 3.9 6.7 2.4 2.8
Other Textiles (except Cotton and Wool) Cotton Wool	3·4 27·5 10·9	3·3 15·4 13·5	2·0 8·6 4·5	4·0 23·6 6·1	4·0 16·3 12·5	2·3 8·7 7·3	1·1 4·6 4·0	1·4 12·0 4·6	1·8 7·3 8·8	1.6 5.5 8.0	·9 3·8 2·1	2·4 9·5 4·9	2·9 8·4 8·4
Total, both groups and miscellaneous	92.8	78.5	70.3	88.2	75.7	59· 6	54.3	56.0	45.2	42:9	39.5	49.1	47.8
Total. excl. cotton and wool	54.4	49.6	57·2	58 ⁻ 5	46.9	43 [.] 6	45.7	39·4	29.4	29.4	33 -6	34.7	31.0

TABLE B.

EXPORTED MANUFACTURES-DECLARED VALUES. & Mn.

	1924 Qrly. Av.	1929 Quart 2 3		1		30 rters. 3	4	1	19 Quar 2	31 ters. 3	4	1932 Qr. 1
Coke Harthenware Iron & Steel Other Metals Cutlery Electrical Goods Machinery Wood Cotton Wool Silk Other Textiles Apparel Chemicals Oils Leather Paper Vehicles* Rubber†	1.6 3.2 18.5 3.9 2.2 2.7 11.2 49.8 17.0 6.9 7.5 6.4 2.2 1.8 3.6 7.5	** 8 1: ** 8 3	7 3·7 17·8 4·6 4·6 2·5 3·8 14·3 30·9 11·6 6·6 6·7 7·7 2·2 2·1 2·8 11·7	1.0 3.3 15.4 3.7 2.0 3.3 13.0 6 30.3 12.2 4 5.9 5.8 2.1 1.5 3 2.1 1.5 3 3 3 3 1.5 4 8 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5	13-3 3-9 12-9 12-06 7-2 4-9 4-3 5-6 1-9 1-5 2-1 15-2	.9 3.0 11.9 2.6 1.8 3.1 11.0 6 19.5 9.7 4.6 5.3 5.1 1.8 1.2 2.1	1.0 2.6 10.8 2.7 1.7 2.7 11.0 5 16.2 7.8 3 4.1 4.4 5.0 1.6 1.1 1.9 12.9	*8 2.0 2.0 2.0 2.0 2.3 8.8 4 4.3 3.5 5 3.8 3 1.4 8 8.3 5.5	.5 2.2 7.8 1.6 1.3 1.9 8.2 13.4 5.0 3.1 3.1 3.0 6 1.3 8.2 9.6	7 2·1 6·9 1·7 1·3 1·6 7·3 1·1 6·8 3·1 3·8 1·2 ·8 1·7 0 ·5	9 2·1 7·7 1·6 1·4 1·6 8·4 13·9 5·2 3·2 4·2 1·3 1·7 4·0 5	7 1:8 7:1 1:5 1:4 7:9 16:7 6:6 23:3 2:4 1:2 1:6 4:4 4:5
Total, including Miscellaneous	154.7	138.9 146.2	143.6	128.4	110.3	104.8	96.3	78:4	72.0	70.7	69-5	70:2

^{*} Including rubber tyres after 1924.

[†] Excluding rubber tyres after 1924.

EXPORTS OF MANUFACTURES.

Value of chief articles exported in the 1st Qrs. of 1931 and 1932 to the principal countries concerned.

15t Qr. 15t			principal countries concerned.	
POTTERY, Rec. 106 75 15 15 15 15 15 15 15		1st Qr. 1931 1932	1st Qr. 1931 1932	
POTTERY, Rec. 106 75 174 1		£000	£000	
1. 1. 1. 1. 1. 1. 1. 1.	POTTERY, ETC.		RAIL LOCOMOTIVES (Steam COTTON PIECE GOODS—continued	2000
British S. Africa	U.S.A		and other) India & Ceylon	
British India	Argentine		Rest of S. America 16 — Straits Settlements & Malay	
Authorities	British S. Africa British India	41 35	British India 252 32 Australia	
Canada	Australia	40 24	Other Countries 84 87 New Zealand Canada	
To S. Ireland	Canada		656 119 Other Countries	
Figure Property	Other Countries			10062 11130
Pics IRON & FERROALLOYS 25 15 25 25 25 25 25 25	To S. Ireland		S. America 152 61 WOOL TOPS & WORSTED	215 202
Description Control Parame Control Parame			British India 95 09 YARN.	
Paris		23 19	Other Countries 401 107 Germany	319 513
Other Countries 175 119	France	40 21	Japan	
PLATES & SHEETS (not coated)	U.S.A	29 20	Other Countries	
PLATES & SHEETS (not coated).	Other Countries		not electrical).	
PLATES & SHEETS (not coated).		288 191	France 04 07	55 55
Argentine	OLYMPIC . CHIEFING /		Spain 13 12 WOOL& WORSTED TISSUES	454 259
Argentine	coated).		S. America 107 75 Netherlands	174 181
Straits Augusta	Japan	136 66	British India and Ceylon 208 128 France	246 130
Other Countries	British India		Straits Settlements 17 7 Italy Australia	
CALVANISED SHEETS. California Californ			Other Countries 105 184 China	391 249
CALVANISED SHEETS. Dutch E. Indies Dutch E		460 481	825 645 U.S.A	245 144
Dutch E. Indies 19 45 5 5 6 7 49 Argentine, Uruguay 19 9 9 8 15 15 15 15 15 15 15			TEXTILE MACHINERY Brazil, Uruguay, Argentine	637 287
Argentine, Uruguay		10 45	Russia 55 61 British S. Africa	
British W. Africa	Argentine, Uruguay	19 9	Netherlands 50 56 New Zealand	115 109
British India	British W. Africa		Rest of Europe 245 314 Other Countries	
Other Countries	British India		China 101 104	
To S. Ireland Section Section	New Zealand	42 36		164 169
To S. Ireland	Other Countries		British India 417 465 LINEN PIECE GOODS.	
SHEETS (Tinned, etc.)	To S. Ireland		Australia 97 00 Cuha	53 34 38 33
Norway	SHEETS (Tinned, etc.)		1967 1431 Australia and New Zealand	79 96
Germany	Norway		Other Countries	
France	Germany	40 31	Norway, Sweden, Denmark 118 193	880 870
Spain	Netherlands France	51 13	Netherlands 285 212 APPAREL.	478 305
Dutch E. Indies	Spain	95 58	Belgium 110 74 British S. Arroad 126 45 Australia	6 4
Japan		80 94	Switzerland 175 96 New Zealand	53 31
Argentine	Japan	63 250	Roumania 113 197 Other Countries	
Straits Setts. and Malay	Brazil Argentine		Brazil 74 37	
Australia		44 58	British India 205 297	
Other Countries 121 52	Australia	132 186	China and Hong Kong 88 500 British S. Africa	
COPPER MANUFACTURES Egypt	Other Countries		Canada 44 58 New Zealand	
COPPER MANUFACTURES S		1705 2100	Other Countries 504 514	403 320
Egypt	COPPER MANUFACTURES		2717 3228	
Australia			COTTON PIECE GOODS.	1 70
Other Countries	Australia	10 7	Germany 206 183 Germany	69 42
Turkey	New Zealand Other Countries		Switzerland 182 174 U.S.A	79 102
TIN (Blocks, etc.)			- Turkey 257 88 614	
Sweden	PIN (Place -4.)		- Dutch E. Indies 241 293	07 77
France 67 40 Brazil 44 23 Foreign Countries 125 124 U.S.A 313 7 Argentine, Uruguay 671 512 British India 50 23 Canada 7 1 Colombia 193 152 Australia and New Zealand 286 341	Sweden		U.S.A 190 128	
U.S.A 513 7 Argentine, Uruguay 671 512 Australia and New Zealand 286 341 Canada 193 152 Australia and New Zealand 119 139	France	67 40	Brazil 44 23 Foreign Countries	126 124
	U.S.A	313	Argentine, Uruguay 193 152 Australia and New Zealand	286 341
585 284 Foreign W. & E. Africa 211 239 581 620	Other Countries			·
		585 284	Foreign W. & E. Africa 211 239	581 620

IRON AND STEEL STATISTICS FOR U.K. 000 tons.

		P	IG-IRC	N.†				CRUD	e stee	L.	EXPOI	RTS OF STEEL.
		Produc- tion	+ Im- ports	- Ex- ports	=Home Cons'mp- tion	% Imports to Home Consump- tion	Pro- duction	*Im- ports	Home Con- sumption	% Imports to Home Con- sumption	Semi- Finished	Finished
1913	Qrly.	2565	46	236	2375	1.9	1916	215	2131	10	209	751
1923	aver'ge	1860	27	223	1664	1.6	2122	138	2263	6·1	540	1153
1924		1840	77	150	1756	4.4	2054	271	2324	11·7	470	1146
1925		1559	71	140	1490	4.8	1849	289	2139	13·5	188	600
1926		610	124	148	653	1.9	890	390	1280	30·5	145	521
1927		1826	152	83	1895	8.0	2275	421	2695	15·6	251	712
1928		1653	30	114	1569	1.8	2131	286	2417	11·8	245	702
1929	1	1674	30	143	1561	1·9	2404	200	2604	7·6	265	737
	2	1924	2 9	156	1797	1·6	2483	268	2751	9·7	237	692
	3	2018	55	167	1906	8·7	2406	252	2658	9·5	250	653
	4	1963	39	79	1923	2·0	2366	270	2636	10·2	258	716
1930	1	1923	72	107	1888	3·8	2374	334	2708	12·3	225	647
	2	1797	68	84	1781	3·8	1988	245	2233	10·9	159	567
	3	1328	109	87	1350	8·1	1653	210	1863	11·3	150	506
	4	1149	62	39	1172	5·3	1284	300	1584	18·9	139	426
1931	1	1012	67	48	1031	6·5	1389	227	1616	14.0	99	331
	2	993	83	63	1014	8·2	1261	294	1555	18.9	98	355
	3	841	62	44	859	7·2	1186	302	1489	20.3	88	316
	4	911	93	47	958	9·7	1339	434	1773	24.5	106	374
1932	1	989	58	33	1014	5.7	1373	266	1639	16.2	99	339

f Inc. Ferrous Alloys.

STOCKS OF STAPLE COMMODITIES

Table supplementary to the summary table, p. 2, Special Mem. 32

Beg	inning of	(1) American Cotton. 1,000 bales	(2) Copper. 1,000 tons.	(3) Tin.§ 1,000 tons.	1,000 U.S.	ad.	(5) Spelter 1,000 tons.	(6) Rubber. 1,000 tons.	(7) Sugar. 1,000 tons.	(8) Tea.	(9) Coffee. 1,000 bags.	(10) Wheat. Mn. bush.	Petrol- eum. Mn. barrels
1930	April July Oct		47 9 522 545	42.6 50.7 49.1	41·1 49·6 65·8	6·8 7·4 6·2	90 109 131	426 430 ‡483	6,125 6,196 3,629	210 209 222	27,470 28,424 29,860	518 379 544	639 632 613
1931	Jan. Feb. Mar. April May June	6,578 6,888 7,000 7,051	535 525 519 510 523 551	52·6 54·7 59·3 60·0 59·5 61·5	92·2 101·0 110·0 116·5 119·2 127·1	8·3 10·5 13·2 13·5 14·0 13·6	140 142 142 140 143 146	506 526 533 547 552 543	7,018 7,218 7,573 8,453 8,270 7,779	262 274 270 242 212 205	29,309 28,829 28,457 28,292 27,504 26,351	583 602 630 600 531 490	603 597 593 591 592 591
	July	7,571 8,166 8,553 8,648	564 582 596 623 *	62:0 61:7 63:1 61:9 61:5 61:2	124.6 117.8 119.6 118.6 124.9 128.6	13·5 14·4 13·9 13·2 12·5 12·5	144 139 138 138 139 139	545 561 568 570 600 615	7,007 6,086 7,160 6,811 7,621 8,897	203 198 206 195 207 219	25,537 27,827 30,012 31,405 32,166 33,259	445 463 500 501 528 542	587 583 570 557 553 557
1932	Jan Feb March 'April	8,713 8,709†	* * *	61.7 61.4 61.0 61.5	135·2 143·1 148·1	13·1 13·3 13·8 14·7	138 137 136 138	645 653 644	8,577 8,247 8,641	260 248 240 213	34,353 34,356 34,179		569 569 570

^{*} Yot Available.

- (1) Total supply seasonally corrected, exclusive of European and Asiatic mill stocks.
- (2) Total supply outside hands of consumers less Japan Stocks.
 - (3) London Metal Exchange Visible Supply plus "Tin" estimate of Straits Stocks.
 - (4) U.S. and Mexico refined stocks to April, 1930. U.S. only since: U.K. stocks in official warehouses,
 - (5) Visible supply in U.K. and U.S.

- (6) An estimate of World's stocks supplied by Rubber Growers' Association.
- (7) Total visible supply, exclusive of Interior Stocks in Cuba prior to Oct., 1926.
- (8) Bonded Warehouse Stocks to Jan., 1929. Tea Brokers' Assoc. since.
- (9) Visible supply in Brazil (Ports and Interior, excluding São Paulo Government stock), Europe and U.S.A.
 (10) Stanford Wheat Studies Estimate of World's Visible Supply.
- (11) Stocks of Crude and Refined Oils in U.S.

^{*} Blooms, Billets, Sheet and Tinplate Bars.

[†] Provisional.

[§] Revised.

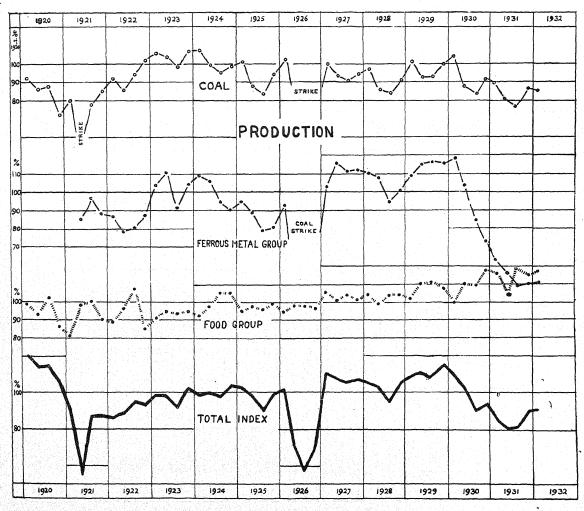
^{: &}quot;U.S.A. Afloat" no longer available.

THE PHYSICAL VOLUME OF PRODUCTION.

The Index Number of Production for the first quarter of 1932 is 91.4. This shows an increase over the preceding quarter's figure of 1 point, and an increase over the corresponding figure for the first quarter of 1931 of 6 points. The suggestion made last quarter that the decline in industrial production had been stayed therefore receives further support from the present figure.

The individual figures for the coal and the iron and steel groups are at practically the same level as in the last quarter. The non-ferrous metal group is lower than in the previous quarter, the textile figure is again at about the same high level as before, and the food group is again maintained at nearly same figure, consistently high.

QUARTERLY INDEX OF PRODUCTION.

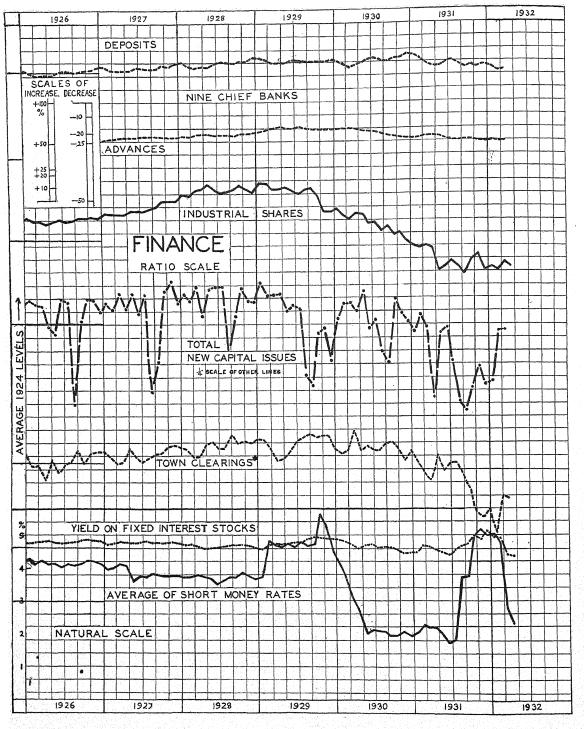


QUARTERLY INDEX NUMBERS OF PRODUCTION. Average 1924=100.

Group	Industry	Ave quar produ	Wei	Year: 1924	1925	1926	1927	1928	1929	1930	1931	Ş
:dn	stry:	Average quarterly production, 1924.	Weights.	Ors. 1224	чака	H0164	HOWA	HONO	H0204	10N4	H0104	•
H	Coal- mining.	000 tons 67,308	232	107·3 99·3 95·0 98·4	100.8 87.8 83.6 94.4	102:5 29:8 10:4 41:6	100·0 93·5 90·8 94·1	97·1 86·1 83·8 91·4	101.2 93.1 93.3 99.5	104·2 87·8 83·7 91·6	88:3 81:4 76:2 86:2	7.20
ı	Pig. Iron.	000 tons 1,827	12	105·0 102·8 97·1 96·3	94.4 90.6 75.9 80.5	87.8 36.7 2.4 6.8	91.8 112:3 100:3 94:8	93·3 94·0 85·4 89·1	91.6 105.3 110.5 107.5	105·1 98·4 72·7 62·9	55.4 54.4 46.0 49.9	24.0
	Steel.	000 tons 2,050	36	111.2 106.0 90.8 92.8	94.7 89.5 83.3 93.3	103·8 36·1 8·8 24·9	122:3 121:1 102:8 97:7	106·5 102·7 99·2 107·4	117.0 121.1 120.0 115.4	118.4 97.0 82.5 64.0	67.7 62.9 57.9 66.8	67.0
Π,		000 tons 1,373	88	100.0 106.7 103.1 90.1	79·5 74·1 67·6 57·4	55.6 55.6 48.6 48.1	87:2 100:6 111:8 114:7	104.9 87.6 79.4 90.5	98.8 105.9 105.4 113.6	117·6 101·4 81·4 66·2	50.6 40.5 30.4 29.2	0.70
	Ship- Railway building Vehicles	tons 9,929	õ	142.7 112.9 78.3 66.1	167.9 150.0 111.9 98.5	188-6 149-1 94-0 82-6	67.0 155.7 196.3 244.6	199°3 265°1 154°2 126°2	139.9 131.6 152.8 149.9	149.0 180.8 151.2 189.8	104·9 75·7 76·2 22·5	21.2
	Group Index.		341	109.0 106.2 94.6 90.6	95·1 89·2 79·4 81·1	92.8 49.4 25.1 32.7	103·4 116·0 111·3 112·0	110·1 107·7 94·9 100·8	109·1 114·8 116·4 115·9	118·1 104·1 85·2 72·9	63.2 55.8 49.1 50.1	0.03
	Copper.	tons 39,626	99	96.9 93.8 104.1 105.0	97.4 95.7 104.8 94.3	110.9 95.8 118.8 116.7	119·7 132·0 112·4 125·9	125.8 126.1 120.6 118.2	117.4 120.8 114.7 120.1	103·1 121·1 129·4 114·5	88.6 104.2 85.0 96.5	05.4
III.	Lead, Tin and Zinc.	tons 87,967	69	96·4 87·3 118·5 97·7	102-3 108-9 117-0 124-9	123·8 111·1 110·4 121·5	131.6 115.8 124.4 114.2	109.9 120.0 94.3 106.5	106·1 120·3 120·4 109·7	119.7 113.7 100.4 123.9	96.0 138.1 115.7 123.6	115.6
	Group Index.		52	96·6 90·4 111·6 101·2	100.0 102.6 111.2 110.3	117.6 103.8 114.4 119.2	125.9 123.5 118.7 119.8	117·5 122·9 106·9 112·1	111.5 120.5 117.7 114.7	111.8 117.2 114.3 119.4	92.4 121.9 101.0 110.6	105.0
	Cotton.	bales 689	<i>\$</i> 3	104·2 90·4 79·7 126·0	136.9 120.6 101.6 135.1	135.0 102.8 81.7 107.2	142.8 120.2 109.6 109.3	114.4 109.0 92.9 115.0	117.6 111.4 85.8 118.6	107:3 86:4 61:3 81:3	71.7 78.1 74.3 102.0	100.0
IV.	Silk.†		07	74.6 94.3 111.5 119.5	112°2 152°0 81°9 79°3	92.7 96.5 86.3 105.0	108:2 101:8 96:9 147:6	151.1 136.6 140.8 158.0	147·3 142·2 162·8 175·0	159.0 125.0 127.2 140.7	142.0 139.7 145.7 177.9	166.0*
	Group Index.		216	101.0 90.8 83.2 125.3	124.2 124.0 99.5 129.0	130.4 102.1 82.2 107.0	139.0 118.2 108.2 113.5	118.4 112.0 98.1 119.7	120·8 114·7 94·1 124·5	112.9 90.6 68.4 87.7	79·3 84·8 82·1 110·2	108.0*
	Wheat and Flour.	000 cwts. 31,914	09	85.4 99.6 111.6 103.3	89.2 89.3 88.4 91.1	82.2 87.0 97.9 84.0	92·4 103·6 98·0 92·3	93.2 86.4 92.7 91.8	87.0 94.9 100.1 91.4	81.3 91.8 99.8 101.9	89.9 97.5 110.8 114.2	0.80
Λ	Сосов.	cwts. 259,231	IJ	109·6 89·6 88·7 112·1	109·9 113·3 99·2 112·1	119.3 114.4 87.6 113.9	144·3 82·4 102·8 101·3	121.4 103.7 102.5 101.0	115·3 116·7 103·4 108·3	99.9 121.7 96.5 121.6	151.2 95.9 118.6 99.5	166.0
	Tobacco	000 lbs. 36,477	7.2	95.6 99.7 101.9 102.7	96.3 105.2 110.2 108.5	102.5 112.7 104.8 112.8	107.2 110.0 118.7 121.9	116·9 124·3 127·7 133·6	123·3 139·1 141·1 142·1	138.3 136.7 138.0 145.4	142.9 122.5 132.8 128.4	7.161
	Group Index.		209	92.5 97.8 104.9	94·8 97·8 96·0 99·4	95.3 98.6 97.8 96.8	105.7 101.4 104.2 101.6	104.4 99.3 103.5 104.2	101.9 110.6 111.3 107.9	99.8 110.3 109.3 117.1	115.3 103.8 118.1 115.2	117.9
VI.	Oil Seed crush- ing.	000 tons 435·3	l	109·9 97·8 87·8 104·5	118·2 91·1 93·0 84·6	92.8 84.6 80.4 59.7	82.8 77.5 66.8 70.6	98.8 99.8 79.5 72.7	109.2 86.0 69.7 87.7	79.7 69.2 59.1 75.7	82.0 86.4 67.4 75.8	86.9
	Group Index (incl. heavy Chemi- cals.)		29	95.4 103.0 101.0 101.2	107·6 94·4 82·4 87·4	90.0 79.5 72.6 84.4	107.0 92.6 92.8 97.9	104.8 103.8 93.3 102.7	100°1 102°1 103°4 105°4	94.5 88.8 97.7 84.2	83.9 82.5 73.9 86.5	80.08
VII.	Paper.	000 tons 244:3	86	53·7 104·9 127·2 114·2	77.3 99.4 108.6 111.2	91.7 114.4 114.8 103.5	109·0 112·1 126·4 124·2	82.4 118.0 99.8 122.9	111.2 136.6 139.7 147.0	116·3 127·0 125·4 122·5	101.6 94.0 121.1 142.6	155.0
	Final Index.		1183	98.8 99.9 97.9	102.6 98.2 90.1 99.1	102.2 72.0 67.3 69.7	110°8 108°1 105°9 107°4	105.7 103.7 95.4 105.2	108.3 111.0 108.2 114.8	109.6 100.9 90.7 92.7	86.1 80.6 81.1 90.5	7.20

FOREIGN EXCHANGES.

-					AV	erage (OF DAIL	Y RATES	•				
	Paris f. to £	Milan l. to £	Berlin M. to £	Amster- dam fl. to £	Prague kr. to £	Berne	Stock- holm kr. to £	NewYork \$ to £	Buenos Aires d. to \$	Rio de Janeiro d. per mil.	Bombay d. per rup.	Hong- kong d. per \$	Kobe d.perye
Parity	124:21†	92·46§	20.43	12·107	24.02	25-2215	18.159	4.866	47 58	27	18		24-58
1927 IULY JEPT OCT NOV	124·00 124·01 124·00 124·03 124·00 124·00	89·04 89·32 89·35 89·12 89·47 90·69	20·450 20·431 20·433 20·408 20·422 20·435	For 1919 12:119 12:129 12:135 12:116 12:075 12:073	to 1927 163.9 164.0 164.0 164.3 164.4 164.7	RATES S 25·220 25·212 25·222 25·249 25·272 25·277	18·128 18·116 18·094 18·084 18·098 18·080	# BULLE 4.8552 4.8606 4.8634 4.8700 4.8740 4.8825	47·76 47·85 47·95 47·90 47·83 47·82	5·83 5·87 5·87 5·91 5·89 5·91	17:87 17:87 17:97 17:97 17:99 18:10	24·15 23·68 23·83 23·95 24·43 24·63	23·31 23·37 23·14 22·96 22·65 22·71
1928 JAN FEB MAR APRIL MAY JUNE	124·00 124·02 124·02 124·01 124·01 124·16	92·17 92·07 92·37 92·55 92·65 92·76	20:461 20:431 20:412 20:412 20:399 20:417	12·086 12·109 12·124 12·110 12·098 12·098	164·5 164·5 164·64 164·71 164·72 164·67	25·332 25·339 25·332 25·327 25·317	18·138 18·161 18·180 18·183 18·193 18·186	4·8758 4·8750 4·8801 4·8821 4·8817 4·8805	47:83 47:88 47:86 47:81 47:80 47:66	5·92 5·92 5·93 5·92 5·92 5·89	18·10 18·00 18·00 18·01 17·95	24·69 24·44 24·40 24·42 25·05 24·66	23·09 23·08 23·20 23·47 22·94 22·95
JULY AUG SEPT OCT NOV DEC	124·23 124·18 124·14 124·11	92·81 92·74 92·74 92·61 92·57 92·66	20·384 20·364 20·356 20·363 20·354 20·360	12:084 12:101 12:097 12:096 12:082 12:078	164·13 163·76 163·65 163·63 163·64 163·72	25·255 25·211 25·200 25·200 25·190 25·178	18·161 18·134 18·130 18·138 18·143 18·132	4·8642 4·8538 4·8508 4·8498 4·8495 4·8525	47:43 47:41 47:34 47:34 47:47 47:36	5·90 5·91 5·91 5·92 5·91 5·89	17:91 17:95 18:06 18:06 18:07 18:062	24·54 24·50 24·36 24·55 24·59 24·51	22·65 22·29 22·69 22·88 22·96 22·75
1929 JAN FEB MAR APRIL MAY JUNE	124·23 124·24 124·21 124·14	92.67 92.70 92.68 92.70 92.65 92.67	20·402 20·447 20·455 20·475 20·415 20·335	12·091 12·115 12·117 12·090 12·067 12·074	163.83 163.84 163.85 163.85 163.85 163.73	25·207 25·231 25·229 25·214 25·190 25·198	18·138 18·155 18·170 18·173 18·154 18·113	4·8503 4·8525 4·8529 4·8534 4·8510 4·8485	47·42 47·39 47·28 47·28 47·24 47·17	5·91 5·90 5·86 5·87 5·87 5·87	18:056 18:013 18:008 17:965 17:912 17:854	24·49 24·08 24·08 23·92 23·68 23·66	22·56 22·36 22·05 22·08 22·11 21·77
JULY AUG SEPT OCT NOV DEC	123·90 123·87 123·89 123·85	92·74 92·74 92·69 93·00 93·16 93·24	20·359 20·360 20·361 20·389 20·386	12·086 12·103 12·093 12·098 12·087 12·096	163·90 163·83 163·76 164·41 164·57 164·47	25·221 25·203 25·164 25·176 25·151 25·109	18·100 18·101 18·101 18·141 18·149 18·102	4.8777	47·23 47·21 47·20 46·82 46·26 45·86	5·87 5·88 5.87 5·86 5·80 5·56	17·818 17·830 17·869 17·871 17·886 17·936	23·89 23·87 25·73 21·73 21·18 20·52	22:54 23:13 23:42 23:58 24:00 24:10
JAN FEB MAR APRIL MAY JUNE	. 124·16 . 124·26 . 124·10 . 123·90	93·05 92·87 92·84 92·78 92·71 92·76	20·387 20·366 20·382 20·375 20·365 20·372	12·102 12·123 12·125 12·097 12·081 12·086	164·58 164·26 164·11 164·16 163·97 163·85	25·163 25·198 25·136 25·094 25·108 25·084	18.111	4·8621 4·8632 4·8634 4·8599	45·12 42·70 42·24 43·61 43·02 41·67	5·52 5·55 5·72 5·81 5·86 5·63	17:931 17:907 17:862 17:860 17:835 17:816	19·47 18·66 18·24 18·40 17·67 15·45	24 · 28 24 · 38 24 · 38 24 · 38 24 · 38 24 · 4
JULY AUG SEPT OCT NOV DEC	123·82 123·77 123·85 123·65	92·88 92·98 92·83 92·80 92·78 92·72	20·383 20·387 20·404 20·412 20·379 20·369	12·092 12·089 12·067 12·058 12·068 12·061	164·05 164·17 163·82 163·79 163·79 163·70	25·044 25·047 25·049 25·020 25·049	18·112 18·093 18·096 18·101	4·8708 4·8614 4·8589 4·8566	40.84 40.67 40.37 38.50 38.65 37.42	5·34 4·87 4·98 ‡ 4·85 4·73	17·821 17·790 17·788 17·818 17·789 17·779	15·41 15·88 15·90 15·81 15·55 13·91	24·39 24·3 24·4 24·5 24·5 24·5
JAN FEB MAR APRIL MAY JUNE	123·94 123·13 124·28 124· 3 4	92·74 92·81 92·74 92·82 92·91 92·94	20·418 20·438 20·406 20·408 20·434 20·496	12-066 12-103 12-119 12-106 12-103 12-088	163·90 164·08 163·95 164·06 164·11 164·18	25·075 25·181 25·246 25·235 25.219 25·081	18:147 18:142 18:148 18:143	4·8565 4·8585 4·8600 4·8641	35.63 38.60 37.77 34.87	4·45 4·24 3·87 3·62 3.33 3·71	17 782 17 781 17 849 17 845 17 856 17 777	11.99 11.82 11.77	24·4 24·4 24·4 24·4 24·4 24·3
JULY AUG SEPT OCT NOV DEC	123·90 115·64 98·68 94·83	92:86 92:87 88:02 75:37 72:14 65:96	20·969†1 20·573 19·361 16·702 15·717 14·261	12.057 12.046 11.34 9.62 9.26 8.35	163·97 163·96 132·72 130·7 125·2 113·4	24·995 24·922 21·74 19·83 19·09 17·30	18:146 18:158 17:51 16:81 17:98 18:01	4·8566 4·8573 4·542 3·886 3·719 3·372	34·61 31·96 32·08 32·03 37·70 40·89	3.58 3·16 3·16 3·49 3·96 4·29	17·811 17·769 17·765 18·880 18·136 18·129	* 12.35 15.06 16.74	24·4 24·4 26·1 30·0 31·8 32·1
1932 JAN FEB	87.80	67·89 66·80	14· 4 89 14·548	8·54 8· 5 6	115·8 116·6	17:58 17:73	17·87 17·93	3·430 3·459	40·59 39·72	4·29 4·19	18·125 18·144		25·3 23·9
Week endin Mar. 5 ,, 12 ,, 19 ,, 26 Apr. 2 ,, 9 ,, 16	88·74 92·61 92·03 93·50 96·03 95·84	67·33 70·05 70·07 70·75 72·88 73·30 73·56	14·69 15·26 15·23 15·44 15·86 15·92 16·92	8.68 9.04 8.93 9.11 9.46 9.34 9.34	117·81 122·56 122·33 124·05 127·30 127·50 127·42	18:06 18:76 18:73 19:01 19:48 19:44	18·13 18·13 18·28 18·48 18·62 18·84 19·70	3·492 3·637 3·624 3·697 3·782 3·782 3·782	40.06 38.89 38.76 38.26 37.18 36.94 36.48	4·10 4·05 4·06 4·06 3·99 4·08 4·17	18·150 18·156 18·156 18·100 18·060 18·05	16·51 16·24 15·98 15·59 15·15	21· 21·



Scale applicable to all lines except the two lowest.

* NORMAL SEASONAL CHANGE REMOVED.

FINANCE.

1924 Average 100 1925 1st Qr. Av. 106 3rd , ,, 107 4th ,, ,, 114 4th ,, ,, 12 2nd ,, ,, 12 4th ,, ,, 12 4th ,, ,, 12 4th ,, ,, 12 4th ,, ,, 13 1928 1st Qr. Av. 12 2nd ,, ,, 12 4th ,, ,, 13 1928 1st Qr. Av. 13 1928 1st Qr. Av. 14 1929 1929 194N 14	00 09 06 07 14 1.13 1.14 1.16 1.19 1.21 1.224 1.31 1.38 1.45		% L00 00.3 98.5 98.0 96.2 95.5 97.0	Index of grant	7·4 13·8 14·6 3·8 11·9		2140	n,	ers' lise. Adjumoo Mn.	FMn. 11 Towns. vincial	Private Deposits.	Bank and Gurrency Notes.	u Deposits.	Discounts.	Advances.	45	Ratio or Cash to Deposits.	Ratio of Advances to Deposits.	TREASURY BILLS.	Short Money Index.	Day to day rate.	3 months' rate.
1924 Average 100 1925 1st Qr. Av. 106 2nd , ,, 107 3rd , ,, 114 1926 1st Qr. Av. 114 2nd , ,, 114 4th , ,, 112 2nd , ,, 12 4th , ,, 12 3rd , ,, 12 4th , ,, 13 3rd , ,, 12 4th , ,, 13 3rd , ,, 14 4th , ,, 13 1928 1st Qr. Av. 12 2nd , ,, 12 4th , ,, 13 1928 1st Qr. Av. 12 2nd , ,, 14 1929 1929 1929 1930	G Arthur G A	Wanish Variat	% 100 00·3 98·5 98·0 96·3 96·8 97·0 96·2 95·5 97·0	100 99.7 101.5 102.2 103.3 103.1 103.9	7·4 13·8 14·6 3·8 11·9 14·7	£Mn. 11·2 5·3 7·8 3·1	£M1 2070 2230 2140	n. ★	. uMæ	€Mn.	£Mn.	1			Advances.	Invest- ments.	Katio of Cash to Deposits.	Ratio of dvances to Deposits.		Money	to day	months.
1924 Average 100 1925 1st Qr. Av. 109 2nd , ,, 107 4th ,, ,, 114 2nd ,, ,, 114 4th ,, ,, 116 2nd ,, ,, 116 4th ,, ,, 116 2nd ,, ,, 124 4th ,, ,, 12 2nd ,, ,, 12 4th ,, ,, 13 1928 1st Qr. Av. 12 2nd ,, ,, 12 4th ,, ,, 13 1928 1st Qr. Av. 14 1929 14N 14	00 09 09 06 07 14 13 14 16 119 121 1224 131 138 145	% 1 1 1	000 00·3 98·5 98·0 96·3 96·8 97·0 96·2 95·5 97·0	100 99.7 101.5 102.2 103.9 103.3 103.1 103.9	7·4 13·8 14·6 3·8 11·9	11·2 5·3 7·8 3·1	2070 2230 2140	*		1		£Mn.	£Mn.	ONT				₩ [_			
Average 100 1925 1st Qr. Av. 106 106 107 108 10926 1st Qr. Av. 112 2nd ,,, 114 4th ,,, 116 1927 1st Qr. Av. 112 2nd ,,, 12 4th ,,, 13 1928 1st Qr. Av. 13 1928 1st Qr. Av. 13 1928 1st Qr. Av. 14 1929 JAN 14	09 06 07 14 14 13 14 116 119 121 124 131 138 145	1	98·5 98·0 96·3 96·8 97·0 96·2 95·5	99.7 101.5 102.2 103.9 103.3 103.1 103.9	13·8 14·6 3·8 11·9	5·3 7·8 3·1	2230 2140		226	147				emn. a	Mn.	£Mn.	%	%	£Mn.	ds	%	%
1st Qr. Av. 108 2nd , , , , , , , , , , , , , , , , , , ,	06 07 14 14 1.13 1.14 1.16 1.19 1.21 1.24 1.31 1.38 1.45		98·5 98·0 96·3 96·8 97·0 96·2 95·5 97·0	101·5 102·2 103·9 103·3 103·1 103·9	14·6 3·8 11·9 14·7	7·8 3·1	2140	2130		-71	109	390	1632	242	791	324	11.7	48.5	601	100	2.43	3.45
1st Qr. Av. 11/2 2nd , , , , 14/4th , , , , 12/2 2nd , , , , 12/2 2nd , , , , 12/4th , , , , 13/2 3rd , , , , 12/4th , , , , 13/2 2nd , , , , 14/4th , , , , 14/4th , , , , 14/2 JAN 14/2 JAN 14/2	13 14 16 19 121 124 131 138 145		97·0 96·2 95·5	103·1 103·9			2140	2 080 2100 2230	235 235 221 234	150* 140* 135 146	114 107 112 110	382 386 385 379	1634 1609 1619 1631	227 199 231 237	827 849 841 841	289 273 257 261	11.8 11.9 11.8	50·6 52·7 52·0 51·5	611 573 615 641	116 138 125 119	3·10 3·96 3·41 3·42	4·03 4·46 4·08 4·01
1st Qr. Av. 119 2nd , , , , 122 3rd , , , 13 4th , , , , 13 1928 1st Qr. Av. 13 2nd , , , 14 4th , , , , 14 1929 JAN 14	121 124 131 138 145			ı	8·1 8·5 15·7	11·3 9·8 6·2 10·2	2070 2100 1990 2150	1970 2040 2150 22 50	231 219 205 226	141 123 117 128	107 103 108 104	371 381 374 371	1610 1600 1634 1662	209 195 226 225	866 875 874 887	255 244 247 251	11·7 11·9 11·8 11·8	53·8 54·6 53·5 53·4	611 578 624 667	140 137 137 140	4·15 3·92 3·95 4·02	4·54 4·37 4·40 4·63
1928 1st Qr. Av. 13 2nd ,, ,, 14 3rd ,, ,, 14 4th ,, ,, 14 1929 JAN 14	145		96.6	102·9 103·5 103·5 102·8	17·8 16·5 7·2 17·2	9·8 5·8 6·8 20·4	2228 2253 2040 2240	2117 2190 2200 2340	251 238 224 238	135 131 129 140	105 98 100 101	364 377 376 376	1660 1659 1672 1711	220 200 211 233	803 913 919 916	245 237 236 236	11.6 11.7 11.5 11.5	54·5 55·1 54·9 53·5	642 576 609 651	135 127 126 125	3·91 3·68 3·66 3·59	4·23 4·07 4·33 4·32
JAN 14			100·4 98·9	101·4 99·6 101·2 101·0	18·5 20·6 12·4 21·6	16·0 12·5 9·8 8·9	2320 2430 2240 2330	2 210 2360 2 420 2 440	237 242 227 242	138 133 122 132	105 100 102 101	369 374 375 370	1706 1703 1738 1770	226 210 251 252	923 934 932 942	241 232 239 243	11·1 11·1 11·1 11·1	54·2 54·8 53·3 53·3	594 541 605 712	125 121 123 126	3·58 3·52 3·52 3·61	4·22 3·91 4·16 4·36
MAR 14 APR 14 MAY 14	143 — 143	- 1·0 - 3·4 0 - 0·3	97·1 97·9 97·2	98·9 101·9 102·3 102·3 102·9 103·5	18·0 26·2 24·8 28·8 12·3 14·0	29·4 6·8 9·0 6·0 8·8 11·4	2570 2440 2230 2210 2250 2560	2460 2310 2120 2150 2250 2430	250 236 237 253 241 235	136 127	8**37 58+36 63+38 61+36 61+36	353 355 359 363	1809 1777 1739 1743 1732 1770	274 260 214 191 195 216	956 968 980 987 977 978	250 246 244 244 244 244	10.9 10.5 10.6 10.8 10.9 10.9	52·9 54·5 56·4 56·6 56·4 55·3	780 774 712 707 702 756	125 162 160 158 159 156	3·54 5·06 4·58 4·44 4·69 4·23	4·31 5·23 5·38 5·27 5·23 5·28
AUG 14 SEPT 14 OCT 13 NOV 12 DEC 12	121 -		94·2 93·5 93·9 94·1	104.0 106.2 107.0 106.5 106.3 105.8	13·9 2·2 1·5 7·5 6·3 4·0	8·3 1·4 1·2 4·0 6·6 1·2	2370 2250 2410 2440 2450 2170	2510 2560 2510 2530 2530 2320	248 226 224 248 242 248	129 112 114 123 123 127	63+36 65+36 63+36 70+37 55+45 58+36	371 362 7360 2358	1778 1759 1754 1765 1751 1773	234 225 222 227 231 227	985 980 971 971 970 971	242 242 242 241 235 236	10·7 10·7 10·9 10·7 10·6 11·3	55·4 55·7 55·4 55·0 55·4 54·8	757 776 772 787 792 8 05	160 156 157 189 177 151	4·73 4·13 4·21 5·27 5·38 4·64	5·33 5·47 5·49 6·22 5·66 4·80
FEB 11 MAR 11 APR 12 MAY 11	119 - 116 - 120 + 119 -	- 2·6 - 6·5		104·7 104·2 102·0 99·7 101·7 102·4	11:3 8:0 16:9 11:9 17:8 7:7	5.6 18.2 9.4 9.4 20.1 5.5	2340 2400 2770 2340 2360 2430	\$240 \$280 2630 2280 2360 2300	250 236 234 249 235 228	119 121 120 114 104 102	64+36 59+36 59+36 66+36 58+36 59+36	5 348 6 350 6 361 6 356	1767 1714 1682 1712 1742 1788	243 218 181 207 246 273	970 973 976 970 957 958	233 229 225 225 231 233	10.9 10.6 10.8 10.9 10.7 10.6	54·9 56·8 58·0 56·7 54·9 53·6	758 678 615 571 585 618	136 125 104 82 68 71	4.04 3.85 3.35 2.23 1.94 2.13	4·11 3·96 3·03 2·49 2·14 2·33
AUG 10 SEPT 11 OCT 10 NOV 10	106 - 110 + 103 - 105 +	+ 6·0 - 9·9 + 2·8	99·7 99·2 99·7 101·3 103·9 103·3	100·4 100·9 100·4 98·7 96·3 96·9		3·3 3·1 2·6 17·7 8·4 5·4	2150 2100 2340 2220 2070 2150	2280 2400 2430 2300 2140 2290	233 224 207 230 226 226	103 95 89 95 100 103	70+3 66+3 65+3 66+3 60+3 64+3	4 367 4 358 6 357 3 355	1794 1767 1764 1791 1801 1839	284 279 284 296 310 320	952 936 927 924 920 915	241 250 255 257 265 269	10.7 10.6 10.6 10.5 10.5	52·6 51·6 51·1	633 648 649 656 672 706	69 69 65 65 70 66	1.88 1.96 1.69 1.65 2.04 1.52	2·37 2·29 2·09 2·11 2·23 2·30
FEB 9 MAR 9 APR	80 -	- 3.5 + 2.7 - 3.0 -17.0	103.5 98.5 99.6 100.2 103.0 104.6	96:8 101:8 100:6 99:9 97:6 96:0	6.0 7.4 1.4 .9	13.6 6.0 10.1	2060 1960 2270 1980	1860 2 210 1980	218 213 228 218	99 98 94		4 347 3 350 5 354	1836 1782 1726 1698 1700 1744	328 299 238 209 222 264	909 909 921 925 919 908	293 295	10.5 10.5 10.3 10.4	51.0 53.3 54.5 54.1	784 646 587 559 571 623	68 76 75 75 68 60	1.87 2.50 2.23 2.31 1.98 1.56	2·17 2·52 2·62 2·61 2·26 2·12
AUG SEPT OCT NOV DEC.	86 + 82 - 78 - 87 + 92 -	+ 8·1 - 6·8 - 3·3 +15·8 + 8·8 - 16·2	101·5 99·2 97·9 92·6 94·0 90·2	102·9 108·1 106·5	1.6 1.3 2.5 4.3	0.1	8	1930 1740 1480 1430	202 192 217 212	96 87 79 98 93	66+3	54 359 55 360 50 352 51 357 58 355	1750 1708 1675 1688 1670 1700	234 235 238	898 895 897 896 887 887	288 288 264	10.2 10.2 10.2	52·4 53·6 53·1 53·1	600 626	126 168 175	5.05	5.76
FEB 8 MAR APR	80·5 - 86 -	- 0·5 - 2·2 + 7·2 - 5·4			9·1 11·1	1·0	1750 1700	1680 1620	208	98	73 + 3	355 32 345 32 354 35 354	1677 1621 1639			264	10.	5 53·1 5 54· 4 54·2	8 574	163 97	2.48	5.17

STOCKS & SHARES --NEW CAPITAL ISSUES-BANK CLEARINGS-

> BANK OF ENGLAND-PRINCIPAL BANKS-TREASURY BILLS-SHORT MONEY INDEX-

Index Nos. of Prices and Yield as percentage of 1924 level; on 15th of month.

Sensitive Index.—Geometric Mean of monthly percentage changes.
Issues during month in Gt. Evitain (a), for U. K. (b), for Abroad, excluding Government loans, etc.—See MONTHLY REVIEW OF THE MIDLAND BANK, LID.

Total of Town Clearings (i.e., excluding Metropolitan) of London Bankers' Clearing House for 3 weeks covering Total of Town Clearings (i.e., excluding Metropolitan) of London Bankers' Clearing House for 3 weeks covering of London Bankers' Clearing House and Provincial Clearings for 11 towns—proportionate totals for 24 working days.

Oaposits, other than public, 11th-17th of month.

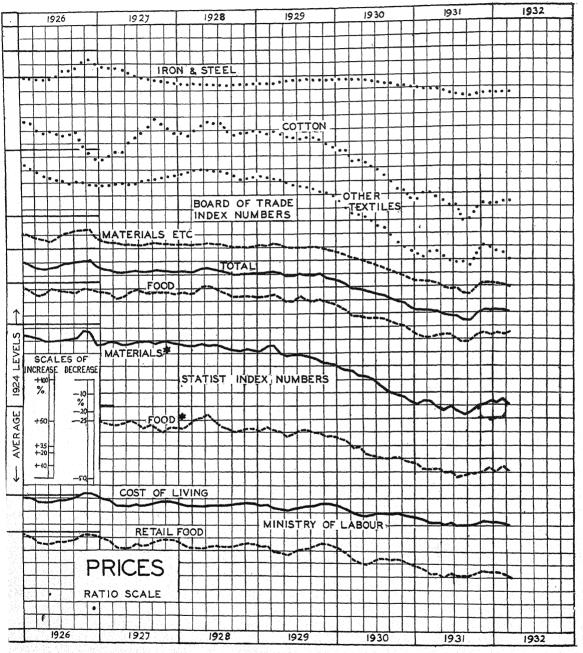
Sank Notes and Currency Notes in circulation 11th-17th of month. Issues amalgamated. November 22nd, 1928.

"Gurrent, Deposit and other accounts." etc. Averages for the month of 9 clearing banks (i.e.—excluding he National Bank, Ltd.).—MONTHLY REVIEW OF THE MIDLAND BANK, LTD.

Total outstanding in middle of month (11th-17th).

Average of Bank Rate, Bankers' Deposit Rate, 3 Months' Bill Rate and day-to-day rate for week ending 15th of month, expressed as percentage of 1924 average.

Day-to-Day Rate and 3 Months' Rate. Averages for week ending 15th of month,



Scale applicable to all lines.

¥ NORMAL SEASONAL CHANGE REMOVED.

PRICES AND WAGES.

U.S.A. PRICES.

BUREAU OF LABOR

Retail Index (Food)

%

104.5

104.5

109.5

106 5

81.5

81.2

78.5

86.5

Cost off Living All items

%

102*

102*

103İ

101*

100.5

99.5

99.5

Wholesale Tindex General

%

106.5

97.5

98

90.5

88.2

78.5

77.5

74.6

73:5

73.5 73.5

72.5

71.5 71.5

84.5

96.5

				WHOLESA	LE.				RET.	AIL.	WAGES.
	Bar Silver	Board o	f Trade Ind		Stati	st (Sauerl	eck) Index	Nos.	M. of I	abour.	New Index
	(Cash).	General.	Food.	Materials. etc.	Fo	ođ.	Raw Materials.	Total.	Cost of Living.	Food.	of Average Weekly
	d. per oz.	%	%	%	%	%	%	%	%	%	Wages.
1924	34.0	100	100	100	100	*	100	100	100	100	100*
Average. 1925									-		
lst Qr. Av	32·2 31·4	101·6 96·0	105·6 100·6	99·4 93·6	105 97	104 97	101 96	103 97	101 99	102 98	100·5 101
2nd ,, ,, 3rd ,, ,,	32.4	93.9	98.3	91.6	96	96	96	97	100	100	100.5
th ,, ,, 1926	32.3	92.0	97.2	89.2	93	94	95	95	101	101	100.5
st Qr. Av	31·0 30·2	88·6 87·2	92·8 93·1	86·3 84·1	91 92	90 91	92 89	92 90	98 96	96 94	100.5
nd ,, ,,	29.1	90.2	92.5	89.0	93	93	90	91	98	95	100·5 100
th ,, ,, 1927	25.2	90.4	93.9	88.5	90	92	94	92	101	99	100.2
st Qr. Av	25·3 26·1	85·6 84·8	90·8 91·6	82·9 81·2	89	89	88	89	97 94	94	101
nd ,, ,, rd ,, ,,	25.5	85.1	91.8	81.6	91 87	90 87	87 88	89 88	94	91 93	101 101
th ,, ,, 1928	26.4	84.8	91.3	81.5	85	86	89	87	97	96	100.5
st Qr. Av	26.3	84.6	91.5	81.1	89	89	86	88	94	92	100
nd ,, ,, rd ,, ,,	27·0 27·0	86·1 83·8	95·3 90·4	81·4 80·5	94 86	93 86	87 84	89 85	94 94	91 92	100 99·5
th ,, ,, 1929	26.6	83.1	89.2	79.9	85	86	84	85	95	93	99.5
AN	26·4 25·8	83·2 83·3	88·7 89·4	80·3 80·0	85	85 87	84 86	84 86	94 95	91·5 92	99·5 99·5
EB	26.0	84.4	90.3	81.2	87 86	85	87	87	92.5	88	99.5
PRIAY	25·9 25·3	83·4 81·7	88·5 86·3	80·7 79·3	86 82·5	85 81·5	82 80·5	84 81	92 91.5	87·5 86	99·5 99·5
UNE	24.3	81.6	86.2	79.1	83.5	82.5	79.5	81	92	87.5	99.5
ULY UG	24·2 24·2	82·7 81·8	89·4 86·8	79·2 79·1	86 84 5	85 85	80·5 80	83 82	93 93·5	90 90 5	99·5 99·5
EPT	23.8	81.7	85.8	79.5	83	84	79.5	81	94.5	91.5	99
OV	23·0 22·6	81·9 80·6	87·2 85·6	79·1 78·0	82· 5 80	83·5 81·5	78 76	80 78	95·5 95·5	93.5	99 99
EC	22.6	79.7	84.6	77.1	81	82	76	78.5	95	92	99
AN	21.1	78.8	83.4	76.3	80.2	80.5	74	77	94	90.5	99
EB IAR	20·2 19·2	76·9 74·9	81·0 77·7	74·7 73·4	79 76	79 75 ·5	73 72	75 74	92 90	88 84	98·5 98·5
PR	19·5 19·2	74·4 73·3	77:6	72·6 71·5	77	76 72	70 69	73 71	89 88	82 81	98·5 98·25
UNE	16.3	72·6	76·5 76·6	70.4	73 72·5	71.5	66.2	69	88.5	83	98.25
ULY	16.0	71.7	76.4	69.2	72	71	65	68	89·5 89·5	84·5 84·5	98·25 98·25
EPT	16·3 16·8	70·9 69·5	75·9 74·4	68·2 67·0	69·5 70	70 70·5	64 62·5	66 65	89	84	98-25
OT IOV	16·7 16·7	68·0 67·4	72·9 72·5	65·4 64·7	70 68	71 69	61.5 61	65 64	89·5 88·5	84·5 83	98·25 98·25
DEC	15.3	65.5	69.8	63.3	67.5	68	59	62.5	87.5	81	98-25
1931 AN	13.7	64.3	68.1	62.4	67.5	67.5	58	61.5	87	80	98.25
EBIAR	12·3 13·8	63·9 63·7	67·1 66·6	62·1	65·5 66	65 65	59 58·5	61·5 61·5	86 84	79 76	9 7 ·75 97·75
APR MAY	13·0 13·1	63·6 62·8	67·4 67·8	61·5 60·1	66·5 65	65·5 64	57 55	61 59	84 83	76 75	97 97
UNE	12.3	62.1	67.7	59.1	65	64	56	59.5	84	76	97
ULY UG	13·2 12·6	61·5 59·9	65·5	59.2	63	62 62·5	54 53	57·5 57	83 83	75 75	97 96·75
EPT	13.0	59.7	64·6 64·7	57·3 57·0	62 63	63.5	55	58	83	75	96.75
ЮТ NOV	17·3 21·3	62·8 64·0	67·7 69·1	60·2 61·4	63 63	63·5 64·5	56·5 57·5	59 60	83·5 84·5	76·5 77·5	96·5 96·5
DEC 1932	20.0	63.7	68.0	61.5	65.2	66	. 58.5	61.5	84	77	96.5
AN	19.9	63.4	69.0	61.0	64.5	64.5	58.5	61	84	77	96.25
FEB WAR	19·4 18·1	63·4 63·0	68·7 69·5	60·7 59·6	67 65·5	66·5 64·5	59·5 5 7	62·5 60·5	83·5 82·5	76 74	95·75 95·75
APR	16.7		1						I	<u> </u>	95.75

New index † No rent restriction. * June ! Dec

PRICE OF SILVER-

Average (cash) price of bar silver for week ending 15th of month.—ECONOMIST.

STATIST (SAUERBECK) INDICES—

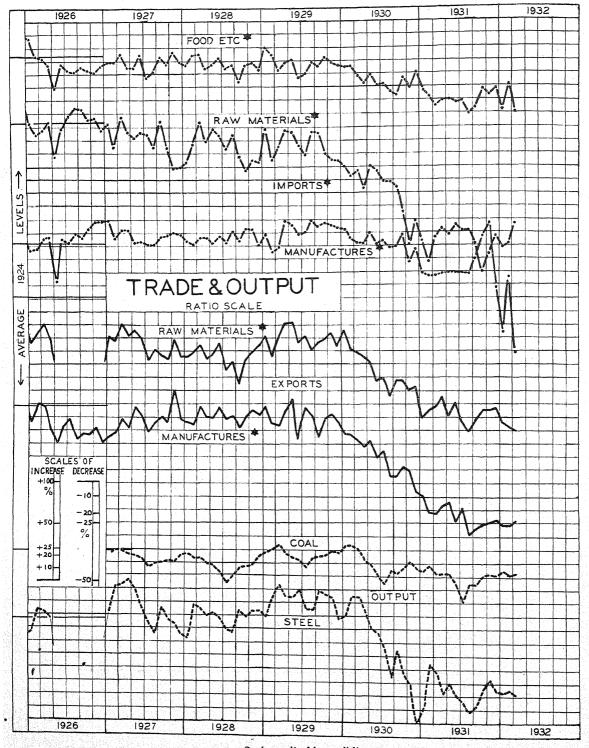
BOARD OF TRADE INDEX—Geometric Mean of Wholesale Prices (averages for month) of 150 commodities as percentage of 1924 average —BOARD OF TRADE JOURNAL. Average wholesale prices of 19 foodstuffs and 26 raw materials on last day of month, as percentage of average for 1924.—STATIST.

COST-OF-LIVING INDEX

Ministry of Labour's index showing movement since 1924 in cost of maintaining unchanged the standard of living prevalent in working-class households before the war. For 1st of month, but placed against previous month—e.g., reading for March 1st is shown against February—to facilitate comparison with "Statist" index. As above, for food only.

RETAIL FOOD PRICES-WAGES INDEX-

For description see Special Mem. No. 28.



Scale applicable to all lines.

* NORMAL SEASONAL CHANGE REMOVED.

TRADE AND OUTPUT.

			TOT	L IM	PORT	S (Val	ues).				EXP	ORTS	OF U.	K. GO	ods	(Values)		01	UTPUI		SHIP B'LD'(
	For Drink	and		aw rials.	Ma facti	nu- ires.	(inclu	tal iding aneous)	Total. NET IMPORTS.	Drin.	od, k and acco.	Ra Mate		Ma factu		Tot (inclu- Miscella	ding	Coal.	Pig Iron.	Steel.	Tonnag Com- menced
	£Mn.		£Mn	1	£Mn.		£Mn.		£Mn,	£Mr		£Mn,		£Mn.		£Mn.		Tons Mn.	Tons 000	Tons 000	Tons 000
1924 Lverage.	47.6	*	33.3	*	25.0	¥	106-4	*	94-8	4.7	*	8.9	*	51·6	*	66-8	*	21.2	520	641	263
1925 LstQr.Av. 2nd ,, ,, 3rd ,, ,,	47·9 45.4 44·7 52·8	51·2 47·0 43·8 49·2	42·0 31·3 27·9 40·6	38·1 33·7 34·3 35·6	26·8 31·3 23·1 25·4		117·3 108·6 96·1 119·2	116·2 112·6 101·9 110·8	104·0 95·4 84·3 105·4	4·7 4·1 4·5 5·0	5·7 4·7 4·1 4·2	8·1 6·9 6·1 7·0	8·2 7·1 6·1 6·7	55·3 49·0 50·0 51·2	54·4 51·6 48·4 51·0	69·6 61·3 62·2 64·6	69·9 64·7 60·1 63·4	21·3 19·2 17·8 19·7	537 509 422 448	608 589 524 597	202 190 261 161
1926 stQr.Av. 2nd ,, ,, 3rd ,, ,,	46·1 40·8 43·8 46·2	49·1 42·3 43·0 42·9	28·4 30·5	\$1.8 \$0.6 \$6.1 33.5	25·6 24·2 26·3 28·9	25·1 24·2 26·5 29·2	107·1 93·7 101·0 112·5	106·4 97·4 106·0 106·1	94·8 83·9 92·4 101·6	4·2 3·6 4·3 4·6	5·1 4·2 3·9 4·0	6·7 3·8 2·0 3·2	6·9 4·0 2·0 3·2	50·9 40·9 45·0 42·5	50·2 43·1 43·7 42·3	63·2 49·5 52·6 52·0	63·5 52·5 50·8 51·1	21·5 —† —	499 207 13 38	665 245 56 161	193 168 68 152
1927 stQr.Av. 2nd ,, ,, 5rd ,, ,, th ,, ,,	43·1 43·4 43·9 49·6	46·0 44·9 43·1 46·1	34·7 28·6 25·1 28·9	3 0·8		28·1 26·4 25·7 27·2	107·0 98·8 95·0 105·9	106·5 102·5 100·1 99·3	96·5 87·2 86·1 95·8	4·1 3·8 4·5 5·0	4·9 4·5 4·0 4·3	6·7 6·7 5·9 6·2	6·8 6·8 5·9 6·0	44·8 45·6 47·1 50·6	44·1 48·0 45·7 50·4	56·8 57:3 58·7 63·5	57·1 60·4 56·8 62·4	21·1 20·3 19·3 20·0	524 631 558 527	782 799 648 629	580 437 370 377
1928 stQr.Av. and ,, ,, ord ,, ,,	44·0 43·2 42·9 47·3	46·5 44·7 42·1 43·9	23.0	29·1 30·5 28·1 24·9	26.2	25·9 26·2 21·4 27·2	103·2 98·5 93·6 103·7	102·0 102· 2 98·2 97·1	92·2 87·1 85·6 94·1	4·3 3·9 4·7 5·2	5· 2 4.5 4·2 4·4	6.0 5.9 5.3 6.2	6·0 6·0 5·2 6·0	49·1 46·5 48·2 49·2	47·7 55·7 46·7 49·0	60·6 57·8 59·9 62·8	60.2 61.1 57.9 61.6	20·3 18·9 17·8 19·6	524 529 475 497	672 676 636 688	34: 27: 24: 43:
1929 JAN FEB MAR MAY JUNE	49.6 40.0 42.1 42.6 44.2 39.6	50·5 47·0 42·9 44·9 45·9 40·3	27·0 28·5 30·9	\$1.9 25.7 28.1 31.5 31.1 28.3	26·8 23·1 27·2 30·2 29·2 26·4	27·1 23·9 24·7 29·7 28·9 27·1	116·5 90·9 98·6 104·1 103·4 91·5	110·5 97·3 96·5 106·5 106·8 96·7	106·7 80·5 88·6 93·8 93·0 81·9	4·2 4·0 3·8 5·0 4·6 3·9	5·0 5·1 4·4 6·0 5·2 4·4	6.6 5.6 6.8 7.8 6.1	6.7 5.8 6.6 7.3 7.4 6.4	53.8 44.3 47.0 47.1 53.4 38.4	51.7 45.9 45.2 50.2 54.7 41.1	66·9 55·7 58·6 60·2 67·4 49·9	65.7 58.6 57.4 64.8 68.9 53.5	21·0 21·5 22·2° 20·8 20·3° 19·9	509 520 533 571 591 614	673 775 841 773 773 812	} 36 } 42
ULY SEPT OCT NOV DEC	45·1 51·2	41.6 45.1 43.9 46.8 45.0 44.0	27·3 30·0	26.5 31.1 30.9 26.8 25.7 25.5	27·4 29·5 28·4 30·2 28·2 27·8	29.0	93.6 101.0 98.4 110.3 108.2 106.4	96.6 107.3 104.1 104.7 101.2 98.9	85.6 92.0 91.6 101.1 100.0 98.6	4·7 4·5 4·8 5·4 5·7 4·9	44 41 41 43 44 49	6·9 6·0 6·5 7·1 6·9 6·2	6·7 6·1 6·4 6·5 6·8 6·2	53·2 50·8 42·2 50·3 48·6 44·6	51·1 48·8 41·7 47·7 49·0 46·2	66.5 63.0 55.1 64.6 63.1 58.4	63.9 60.7 53.9 60.3 62.1 60.0	18·9 20·3° 20·4 20·6 21·3 20·9*	607 616 620 622 589 581	708 705 811 783 763 661	} 36 } 49
1930 IAN PEB MAR MAY UNE	42·9 37·3 40·0 36·7 39·6 37·6	43.7 43.8 40.8 38.7 41.1 38.2	24·0 24·1 20·7 23·1	24.6 22.9 23.8 21.0 24.6 23.6	28·0 25·8 28·1 25·6 27·7 24·5	26.6	101·8 88·2 93·4 83·9 91·0 83·4	97·3 94·4 91·4 85·9 9 3 ·7 87·8	93·7 79·6 85·8 76·1 82·0 75·6	4·6 3·7 4·0 3·6 3·8 3·2	5.5 4.7 4.7 4.4 4.3 3.6	6·9 5·8 6·0 5·4 5·8 4·7	7·0 6·1 6·0 5·8 5·6 4·9	44.7 41.2 42.5 36.7 39.8 33.8	42.9 42.6 40.9 39.1 40.8 36.2	58·3 51·9 53·9 46·9 51·0 42·8	57·5 54·6 53·0 50·5 52·3 45·8	22·1 22·1 21·5 19·9° 19·3 18·0°	587 607 601 578 555 526	679 776 773 696 621 600	} 42 } 23
ULY SEPT OCT NOV DEC	44·1 40·6	\$8.6 \$6.7 \$5.7 40.3 \$7.7 41.9	17.5	22·1 22·0 21·1 17·8 14·2 16·8		24.6 24.8 27.1	85·2 79·9 78·6 90·9 79·4 89·6	87.6 84.3 82.5 86.2 74.9 83.9	78·6 73·6 73·2 83·7 72·6 84·4	4·4 4·0 4·2 4·4 4·8 3·5	4.1 3.6 3.5 3.7 3.5	5·2 4·4 5·0 5·3 4·7 4·7	5·0 4·4 4·9 4·9 4·6 4·7	39·7 33·1 32·0 35·9 32·7 27·6	38·1 31·8 31·7 34·0 33·0 28·6	50·7 42·8 42·7 46·9 44·1 38·5	48·6 41·1 41·7 43·7 43·2 39·5	16·9 18·6° 18·2 18·7 19·8 18·7*	439 376 397 375 358 317	547 441 532 451 424 322	} 16
1931 AN EB IAR IAY UNE	33.3	34.5	14.6	14.6 12.6 14.9 15.8 15.5 16.3			75·5 63·7 70·6 70·0 69·6 68.6	73·3 68·9 69·0 71·7 71·4 72·2	69· 5 57·8 65·2 63·4 63·9 62·6	3·7 2·8 3·0 2·9 2·8 2·6	4:46 3:5 3:5 3:9	3·7 3·8 4·1 4·1 4·0 4·0	3·8 4·0 4·1 4·4 3·8 4·2	28·7 24·0 25·6 24·3 26·0 21.7	26.6	37.6 31.8 34.0 32.5 33.9 29.4	37·3 33·7 33·5 35·0 34·7 31·4	18·4 19·2 18·2 18·2° 18·2 16·9	305 320 323 302 313 302	361 486 458 397 425 393	} 2
ULY UG EPT OCT OEC	35·1 31·8 33·6	34.6 31.4 32.7 37.3 35.9	13.6 12.5 11.2 11.9 15.3	15·7 15·7 14·3 11·7	20·7 20·1 22·6 27·2 28·7 18·2	20.7 20.5 22.8 26.6 29.5	70·1 65·3 68·3 80·7 83·2 77·0	71.7 68.5 70.7 76.5 79.2 71.9	65·2 61·4 64·6 75·4 78·3 71·5	2·7 2·6 2·7 3·4 3·4 2·9	2.5 2.4 2.3 2.7 2.6 2.9	3·8 3·4 3·7 4·3 4·1 4·0	3·7 3·4 3·7 4·0 4·1	26·5 22·0 22·2 24·0 22·9 22·7	21·1 22·0 22·7 23·1	34·3 29·1 29·8 32·8 31·9 32·1	32:9 28:0 29:2 30:6 31:2 31:2	14·9 16·9 16·8 17·9 18·1 17·9	286 249 232 257 277 299	377 349 367 411 439 407	} : } 1
1932 AN., EB IAR	31·5 33·6 30·9	32 ·0 38·2	16·9 15·4	13·8 14·2 16·3	13·3 20·1 13·0	13·4 20·1	62·3 70·2 61·1	59·8 73·6 60·5	57·0 64·7 5 5 ·7	2·8 2·8 2·7	3·4 3·4 3·1	3·6 3·5 3·5	3·7 3·6 3·5	23·4 22·6 24·2	22·5 22·6	31·1 30·0 31·2	30·9 30·7 30·6	-18·5 18·0 18·1°	298 307	402 460	

* NORMAL SEASONAL CHANGE REMOVED.

Declared values of imports (c.i.f.) into U.K., and exports (f.o.b.) of U.K. produce and manufacture. Net imports—Total imports less exports of imported goods.—MONTHLY ACCOUNTS OF TRADE & NAVIGATION.

PIG IRON, STEEL INCORD & CASTINGS
INCORD & CASTINGS
SHIPBUILDING—

Declared values of imports (c.i.f.) into U.K., and exports (f.o.b.) of U.K. produce and manufacture. Net imports—Total imports less exports of imported goods.—MONTHLY ACCOUNTS OF TRADE & NAVIGATION.

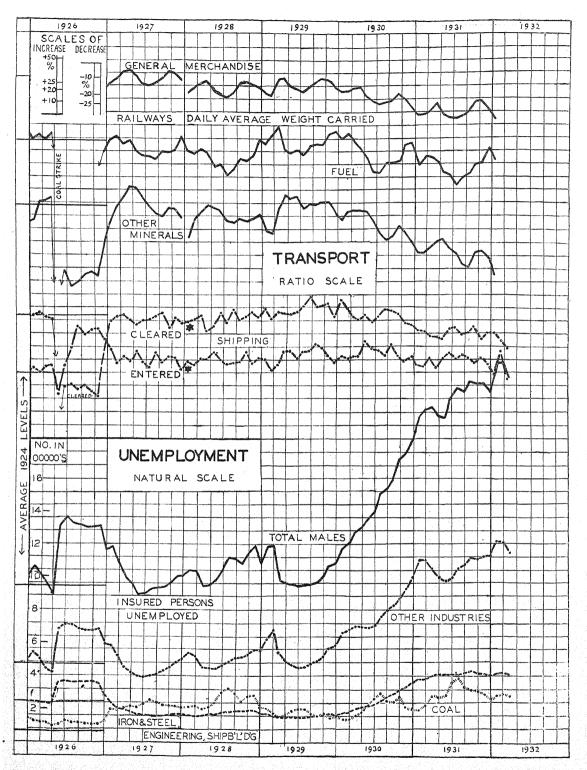
Total for 4 weeks ending approximately at end of month—BOARD OF TRADE JOURNAL.

Output for standard four-week month, based upon monthly figures issued by the NATIONAL FEDERATION OF IRON AND STEEL MANUFACTURERS.

Tonnage of ships over 100 tons (excluding warships) commenced during the quarter.—LLOYD'S REGISFER OF SHIPPING.

[!] Total for Qr. ° 4 Weeks, excluding holiday week.

^{*} Excludes Christmas week, but includes New Year.



* NORMAL SEASONAL CHANGE REMOVED.

TRANSPORT.

UNEMPLOYMENT.

		SHIPPING			RAII	WAYS	i.			INSUI (G	RED I	PERSO	NS UI	NEMPL th Irela	OYED.	‡	Control of Control
		of Ships	Index of		Freigh		c. ilways,					les.				Fem	ales.
	(with C Entered British	Cleared Ports.	% Charter Rates, Preight	General.	Weigh	Other Minerals	Re- ceipts. All Goods.	g Total.	Coal.	Iron & Steel.	Engineering	Shipbuilding.	Building and Construction,	Cotton and Wool.	§ Other Industries.	Total.	Cotton and Wool.
1924 Average	461 ×	544 ★	100 100	544	1743	551	£ Mn 8.89	941	72	52	000 116	78	99	35	000	000	000
1925 1st Qr. Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	417 464 465 463 489 450 479 472	507 545 516 500 523 502 531 532	105 95 92 82 89 78 94 87	544 514 528 551	1733 1517 1491 1713	539 538 517 512	8·88 8·31 8·53 8·89	1034 1058 1107 1063	125 219 250 191	59 62 64 58	100 95 96 95	83 81 85 90	108 77 83	27 31 39 26	371 351 355 345	263 286 273 290 241	62 45 60 73 42
1926 1st Qr. Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	422 <i>469</i> 453 <i>451</i> 644 <i>594</i> 618 <i>606</i>	507 <i>545</i> 364 3 63 343 33 0 352 3 54	91 79 — 78 103 98 138 138	546 429 445 496	1778 667 336 1056	544 376 331 365	9·10 5·81 5·64 7·92	1003 1186 1314 1259	119 109 108 111	50 108 132 108	97 121 135 134	88 90 96 100	117 94 109 139	31 59 69 49	348 454 511 460	243 335 376 307	49 106 130 86
1927 1st Qr. Av 2nd ,, ,, 3rd ,, ,, 1th ,, ,,	447 <i>515</i> 511 <i>509</i> 542 <i>500</i> 503 <i>496</i>	498 <i>536</i> 536 <i>520</i> 566 <i>544</i> 517 <i>518</i>	112 104 113 95 102 87 102 93	543 532 536 550	1754 1605 1595 1672	542 598 534 524	9·42 9·00 9·07 9·11	1082 913 929 990	201 220 243 217	41 39 41 49	97 75 67 69	73 54 48 46	134 82 92 147	29 24 29 31	356 296 295 303	236 175 194 196	46 39 48 49
1928 st Qr. Av 2nd ,, ,, 5rd ,, ,, th ,, ,,	449 <i>494</i> 514 <i>512</i> 531 <i>489</i> 516 <i>509</i>	502 <i>530</i> 535 <i>519</i> 564 <i>542</i> 545 <i>546</i>	93 84 90 83 93 86 113 96	521 496 501 530	1661 1478 1460 1630	506 536 505 516	8·95 8·34 8·37 9·84	1004 992 1108 1142	208 250 290 251	44 45 50 45	67 67 70 71	44 51 59 65	152 109 119 154	27 30 42 37	323 312 346 358	201 197 261 255	43 54 81 66
ISPS IAN IAR APRIL MAY UNE	467 505 391 469 457 488 516 537 538 538 536 508	541 574 462 535 552 559 551 558 601 554 575 563	113 96 109 95 108 89 108 88 108 86 104 81	522 448 515 532 525 484	1832 1711 1849 1613 1646 1566	492 424 519 584 596 562	9·13 8·26 9·27 8·95 8·94 8·39	1189 1197 980 960 956 942	212 170 147 175 198 203	43 42 36 37 37 37	76 72 64 64 65 61	56 52 50 46 46 46	206 252 141 116 104 100	37 38 34 39 37 38	388 393 350 332 325 315	277 257 224 222 221 221	63 60 56 63 69 72
IULY SEPT OCT, OCC	596 534 588 539 589 562 583 549 513 521 494 497	618 585 648 625 596 580 622 589 586 595 517 542	109 83 116 83 119 84 104 77 96 77 88 70	524 513 523 579 536 477	1682 1688 1660 1811 1845 1756	578 560 548 606 573 495	9·05 8·82 8·88 9·69 9·33 8·24	947 951 961 1005 1061 1075	202 173 162 165 153 156	41 40 39 41 47 45	61 66 68 68 70 70	47 49 51 51 49 48	103 108 121 143 172 181	40 41 36 36 40 42	314 331 335 339 356 359	231 247 243 249 265 269	78 78 69 69 69
1930 AN EB IAR PRIL IAY UNE	480 519 427 513 484 517 498 518 579 579 581 551	581 616 496 574 533 542 525 532 598 551 534 523	83 66 84 64 84 61 86 66 86 58 66 62	527 468 512 484 501 436	1892 1743 1755 1563 1621 1318	537 503 540 506 465 485	9·13 8·41 8·92 8·19 8·65 7·27	1173 1209 1267 1301 1357 1396	138 142 155 177 235 254	48 47 55 64 63 63	79 85 91 98 100 107	49 50 55 55 58 62	197 195 177 160 147 147	56 63 67 71 85 91	411 425 456 465 461 469	348 374 427 460 499 515	104 121 138 151 188 209
JLY UG IPT CT EC	605 541 564 517 588 561 557 524 496 504 512 515	571 541 589 567 579 563 581 551 511 519 489 513	71 61 71 70 79 68 — 62 — 68 64 71	483 440 474 515 449 438	1480 1434 1529 1603 1640 1692	485 413 456 512 439 418	8·20 7·54 8·17 8·76 8·18 8 11	1519 1546 1605 1735 1771 1847	301 252 246 282 225 210	71 80 83 91 98 109	114 125 137 151 158 173	65 70 76 82 86 92	160 166 178 200 232 246	102 105 103 96 96	499 532 552 581 610 647	551 573 584 584 598 653	213 217 207 197 192 219
1931 AN. EB. AR. PRIL AY	451 487 401 481 478 510 459 478 511 511 558 530	469 497 423 490 466 473 465 471 504 464 507 497	64 70 65 59 66 54 67 56 70 56 64		1533 1471 1571 1430 1324	410 367 417 401 419 421	7·99 7·37 8·01 7·49 7·05 7·38	1972 2017 2028 1968 1957 2068	208 239 292 278 288 377	99 99 102 101 100 101	178 187 192 194 196 199	95 101 107 108 110 110	288 274 247 220 207 214	112 104 90 93 92 100	697 714 701 683 677 685	691 380 638 625 621 639	211 202 181 184 185 202
ULY UG EPT OV EC	564 505 568 521 535 510 522 491 498 507 486 489	536 507 502 483 503 489 538 509 460 467 460 483	58 62 55 63 55 62 77 73 71 74 71 72	430 395 440 479	1335 1271 1399 1531 1459	421 350 366 415 394 372	7:42 6:87 7:63 8:06 7:53 7:64	2128 2118 2173 2168 2167 2132	387 328 316 302 283 257	97 102 105 95 97 96	202 203 210 205 200 197	111 114 113 115 117 117	235 245 264 302 328 342	107 110 114 81 72 69	705 722 738 726 721 713	679 695 707 625 568 538	213 219 229 161 139 121
1932 AN. EB [AR PRIL	423 <i>45</i> 7 465 <i>540</i> 413 <i>441</i>	454 <i>481</i> 410 <i>458</i> 428 <i>434</i>	51 62 51 65 51 69	-	1412	1000000	6·67†	2304 2300 2211	288 294 281	100 101 100	206 206 201	117 116 114	384 381 349	73 71 66	762 755 732	551 509 449	12 11 9

† 4 Weeks only,

Excluding any disqualified for benefit by trade dispute.

★ NORMAL SEASONAL CHANGE REMOVED.

§ Excludes Commerce, etc.

TRANSPORT:
SHIPPING—ENTERED
AND CLEARED
SHIPPING FREIGHTS—
RAILWAY TRAFFIC—
WEIGHT
DESCRIPTS RECEIPTS

UNEMPLOYMENT— INSURED PERSONS—

Tonnage of British and Foreign vessels entering and leaving British ports with cargoes during month.—BOARD OF TRADE MONTHLY ACCOUNTS OF TRADE & NAGIVATION.

Chamber of Shipping index numbers as published by "The Statist."—PREPARED BY DR. ISSERLIS.

Tonnage of goods carried on the Railways of Great Britain during the month, excluding free-hauled. Monthly Receipts for goods traffic, excluding cost of collection and delivery till January, 1928, then excluding receipts for collection and delivery.—MINISTRY OF TRANSPORT.

Number of books ledged at Labour Exchange on or about 25th of month.

MINISTRY OF LABOUR GAZETTE.

UNITED STATES

THE table below gives statistics relating to the United States, on the same lines as those relating to the United Kingdom, France, Germany, etc., and will form a regular feature of our Bulletins.

Cols. 1 & 2.—Statistics relating to the 12 Federal Reserve Banks (Boston, New York, Philadelphia, Cleveland, Richmond, Atlanta, Chicago, St. Louis, Minneapolis, Kansas City, Dallas, San Francisco). Average of daily figures.

Cols. 3-5.—Statistics relating to 800 member banks of the Federal Reserve System. Week ending Wednesday nearest end of month.

COLS. 6 & 7.—Total Debits to individual accounts from about 150 of the larger clearing house centres.

Col. 8.—Net imports of gold; exports if in italics.

Col. 9.—Rate charged for discounts by New York Federal Reserve Bank. Dates of changes were: 1929—Aug. 9th, 5 to 6%; Nov. 1st, 5%; Nov. 21st, 4½%. 1930—Feb. 7th, 4%; March 14th, 3½%; May 2nd, 3%; June 21st, 2½%; Dec. 24th, 2%. 1931—May 8th, 1½%; Oct. 9th, 2½%; Oct. 16th, 3½%. 1932—Feb. 25th, 3%.

Col. 10.—Average renewal rates for call loans for New York Stock Exchange.

Col. 11.—Rate on prime commercial paper (4-6 months).

Col. 12.—Issues of new securities.

Col. 13.—Dow Jones Index of price of 30 industrial shares % of 1923-5. (Monthly average of daily items.)

Col. 16.—Federal Reserve Board's Index of Industrial production (manufactures and minerals) covering about 80% of total industrial output of U.S.A. Monthly average 1923-5 = 100.

Col. 17.—No. of cars produced in month.

Cols. 18 & 19.—Monthly output—long tons.

Col. 20.—Unfilled orders of United States Steel Corporation. Long tons. End of month.

Col. 21.—Total value of building contracts awarded in 37 Eastern States.

Col. 22.—Total number of freight car loadings.

SOURCES:

Cols. 1-7, 9-11, 16.—Federal Reserve Board.

Cols. 14, 15, 17.—U.S. Dept. of Commerce.

COL. 18.—" Iron Age."

Col. 19.—American Iron and Steel Institute.

Col. 20.—U.S. Steel Corporation.

Col. 21.—F.W. Dodge Corporation.

Col. 22.—American Railway Association.

				77.77 77 (0.13)			
	Discounts & B. S. B.	P.R.Member Bank: Deposits Discounts Investment,	Bank Debits Outside New York Outside New York New York Mu Gold Move-	% Call Loans % Call Loans % Prime Comm' % Prime Comm' Name Gometre	DowJones In Shares Index Exports of U.S. Produce General Imports	% Industrial Most of the control of	5 Co U.S. Steel Corp. B Confilled Orders B Building Con- w tracts Awarded Freight Car Loadings
1929 1st Qr. Av. 2nd Qr. Av. 3rd Qr. Av. 4th Qr. Av. 1930	1 2 906 578 979 299 1036 298 880 623	3 4 5 1331 1636 600 1311 1652 575 1323 1715 547 1438 1809 556	6 7 8 5214 2692 32:5 4710 2658 25:6 4953 2803 23:6 5226 2920 -28:4	9 10 11 1 5·0 7·74 5·59 106 5·0 8·50 6·00 104 5·7 8·65 6·13 118 5·2 5·57 5·67 61	30 282 466 374 14 285 393 388 50 324 400 355	16 17 18 19 120 484 345 463 125 591 376 505 122 472 368 477 108 206 320 365	20 21 22 422 417 405 433 587 449 388 529 477 431 388 430
1st Qr. Av. 2nd Qr. Av. 3rd Qr. Av. 4th Qr. Av. 1931	384 783 243 740 210 761 252 824	1307 1667 561 1357 1692 593 1375 1693 636 1391 1649 674	3553 2407 39·8 3791 2447 34·4 2734 2180 - 12·2 2742 2217 31·4	2·5 4·22 4·63 75 2·5 3·25 3·71 97 2·5 2·20 3·08 45 2·03 2·08 2·92 37	70 242 310 281 56 211 288 222	107 333 297 406 105 399 312 387 91 217 248 297 84 149 190 232	451 366 376 413 514 398 371 349 399 369 280 358
JAN FEB MARCH APRIL MAY JUNE	253 853 216 705 176 727 155 773 163 743 188 731	1368 1575 684 1361 1546 718 1375 1538 755 1366 1499 790 1361 1473 781 1369 1469 779	2456 2170 34.4 2095 1708 16.1 2759 1942 25.6 2682 1962 49.5 2507 1886 49.6 2589 1941 63.9	2.0 1.57 2.88 64 2.0 1.50 2.63 22 2.0 1.55 2.50 6 2.0 1.52 2.38 5 1.5 1.45 2.13 42 1.5 1.50 2.00 40	22 165 221 175 99 166 231 210 90 148 210 186 96 130 199 180	82 172 171 246 87 220 171 250 89 276 203 299 90 337 202 272 89 317 199 251 83 251 164 208	413 228 349 397 235 284 400 370 294 390 337 299 362 306 374 348 332 299
JULY AUGUST SEPT OCT NGV DEC 1932	169 753 222 847 280 995 613 1425 695 1287 774 1117	1347 1449 781 1324 1440 766 1323 1419 792 1245 1352 770 1220 1335 751 1187 1310 743	2101 1844 19:5 1750 1653 57:5 2007 1663 20:6 2068 1813 -337.7 1446 1461 89:4 1923 1711 56:9	1.5 1.50 2.00 27 1.5 1.50 2.00 12 1.5 1.50 2.00 31 3.5 2.10 3.13 4 3.5 2.50 4.00 12 3.5 2.63 3.88 13	26 127 161 167 12 108 177 170 15 93 201 169 29 95 190 150	80 218 146 189 78 187 128 172 77 141 117 155 75 80 117 159 72 69 110 159 67 122 98 130	340 286 293 317 233 375 314 251 291 312 242 381 293 151 262 274 137 228
JAN FEB MARCH APRIL	828 980 848 894	1145 1286 714 1100 1259 700 1084* 1225* 715*	1768 1590 -76.0 1438 1287 -93.1 1474 1448	3·5 2·74 3·88 19 3·5 2·50 3·84 9 3·0 2·50 3·83 19	94 73 151 131	70 119 97 146 71 117 96 146 133§ 97 141	265 85 227 255 89 225 247 112 250§

^{*} For prices, see page 19.



ROYAL ECONOMIC SOCIETY

List of Special Memoranda issued to members of the Royal Economic Society by arrangement with the London and Cambridge Economic Service.

- No. 1. The Economic Position of Great Britain, by A. C. Pigou. July, 1927.
- No. 2. Report on Current Economic Conditions. July, 1927.
- No. 3. Stocks of Staple Commodities, by J. M. Keynes and J. W. F. Rowe. September, 1927.
- No. 4. REPORT ON CURRENT ECONOMIC CONDITIONS. October, 1927.
- No. 5. Report on Current Economic Conditions. January, 1928.
- No. 6. Report on Current Economic Conditions in France, Germany, Italy and Russia. February, 1928.
- No. 7. REPORT ON CURRENT ECONOMIC CONDITIONS. May, 1928.
- No. 8. Output, Employment, and Wages in Industry in the United Kingdom, 1924. May, 1928.
- No. 9. REPORT ON CURRENT ECONOMIC CONDITIONS. July, 1928.
- No. 10. REPORT ON CURRENT ECONOMIC CONDITIONS. October, 1928.
- No. 11. THE RAILWAY INDUSTRY OF GREAT BRITAIN, 1927, by W. V. Wood and C. E. R. Sherrington. January, 1929.
- No. 12. A New Index-Number of Wages, by A. L. Bowley. January, 1929.
- No. 13. Report on Current Economic Conditions. January, 1929.
- No. 14. REPORT ON CURRENT ECONOMIC CONDITIONS. April, 1929.
- No. 15. Report on Current Economic Conditions in Europe. May, 1929.
- No. 16. Report on Current Economic Conditions. July, 1929.
- No. 17. STOCKS OF STAPLE COMMODITIES, by J. M. Keynes and J. W. F. Rowe. August, 1929.
- No. 18. REPORT ON CURRENT ECONOMIC CONDITIONS. October, 1929.
- No. 19. Report on Current Economic Conditions. January, 1930.
- No. 20. Report on Current Economic Conditions in Europe. February, 1930.
- No. 21. Report on Current Economic Conditions. April, 1930.
- No. 22. Report on Current Economic Conditions. July, 1930.
- No. 23. Studies in the Artificial Control of Raw Material Supplies, No. 1. Sugar, by J. W. F. Rowe. October, 1930.
- No. 24. Stocks of Staple Commodities, by J. M. Keynes, J. W. F. Rowe and G. L. Schwartz. October, 1930.
- No. 25. Report on Current Economic Conditions. October, 1930.
- No. 26. Report on Current Economic Conditions. January, 1931.
- No. 27. Report on Current Economic Conditions in Europe. February, 1931.
- No. 28. A New Index of Prices of Securities, by A. L. Bowley, G. L. Schwartz and K. C. Smith. February, 1931.
- No. 29. Studies in the Artificial Control of Raw Material Supplies, No. 2. Rubber, by J. W. F. Rowe. April, 1931.
- No. 30. Report on Current Economic Conditions. April, 1931.
- No. 31. Report on Current Economic Conditions. July, 1931.
- No. 32. Report on Current Economic Conditions. October, 1931.
- No. 33. Report on Current Economic Conditions. . January, 1932.
- No. 34. Studies in the Artificial Control of Raw Material Supplies, No. 3. Brazilian Coffee, by J. W. F. Rowe. February, 1932.
- No. 35. Report on Current Economic Conditions in Europe. February, 1932.

ROYAL ECONOMIC SOCIETY

ISSUED BY ARRANGEMENT WITH THE LONDON AND CAMBRIDGE ECONOMIC SERVICE

MEMORANDUM No. 37

REPORT ON CURRENT ECONOMIC CONDITIONS

July, 1932

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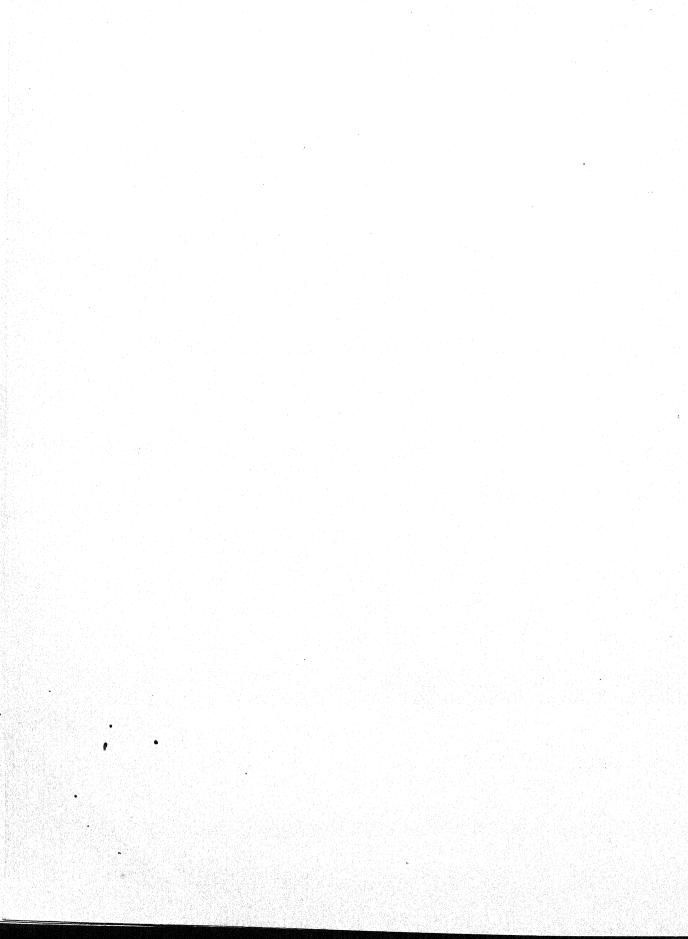
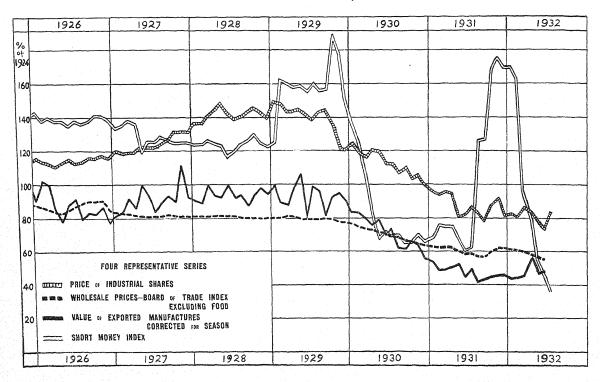


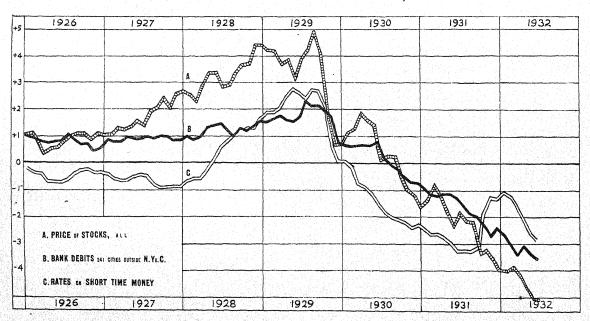
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INDEX CHART, U.K.



HARVARD INDEX CHART, U.S.A.



THE GENERAL BUSINESS POSITION.

UNITED KINGDOM.

July 20th, 1932.

The scheme for conversion of 5% War Loan, together with restriction of new issues of capital, has concentrated investment on existing gilt-edged and other sound securities, and so caused an inflation in their prices. Thus the rise of the securities index-numbers does not signify confidence in future earning power, and new money appears not to be placed in business either for long-term or short-period investment. In the short-term market borrowers seem not to want money even at 1% or ½%.

The immediate results of the Lausanne conference are negative; agreement has prevented a débâcle, but not led to reconstruction. Positive results may be expected to follow if the German elections result in settled political conditions and if an arrangement with the United States makes ratification and a general settlement of international payments possible.

Meanwhile, except for the agreement between Belgium and Holland, there is no reduction of tariffs, but rather fresh arrangements tending to the hindrance of international trade. Nor, while so many political questions are in suspense, does it appear that such trade will improve. The conference at Ottawa, whether it results in more inter-Imperial trade or not, is not calculated to promote world trade as a whole, and its present effect must be to increase uncertainty.

In the United Kingdom there has been remarkably little movement in industry or production for some months. Production is slightly greater on the whole than twelve months ago, mainly owing to the improvement in textiles during the past year. The number of persons employed is nearly the same as a year ago, the increase in unemployment being nearly equal to the natural growth of the insured population. The volume of imports of food and of materials and the volume of exports in the quarter just elapsed are, in aggregate, about the same as a year ago, though there is change in detail.

The statistics of recent months indicate stationariness and not improvement. Till the fall of wholesale prices has definitely ceased, and till there is some revival in the United States, it cannot be hoped that there will be any substantial development at home, though the rather artificially fostered wave of optimism may produce some slight effect.

UNITED STATES. HARVARD FORECAST (By Cable)

July 15th, 1932.

The June decline in the business curve brings it below the former low point reached last month. Commodity prices, though they averaged lower than in May, rose in the last two weeks of June. Federal Reserve operations continued to ease the money market, and a week after the checking of the gold outflow the New York rate was reduced. Stock prices moved narrowly. The curves of the index chart continue to give no forecast of improvement in business such as would be given by sustained recovery of speculation when money was easy.

FOR TABLE OF U.S.A. STATISTICS, see page 23.

RECENT MOVEMENTS OF SUBSIDIARY SERIES.

UNITED KINGDOM.

INANCE.—Since the announcement of the Conversion plan the indices of Industrial and of Fixed Interest Securities, which were already rising in June, have jumped upwards. Industrials have only recovered the level of April, but Fixed Interest Securities have easily passed all records since the War. With the reduction in the Bank rate to 2% on June 30th, the Short Money Index has again fallen; the rate on 3 months bills is under 1%.

New Capital Issues for home in June were greater than in any month since May, 1930. Those for Overseas were small.

While Town Clearings increased in June, Country Clearings fell off considerably, and Provincial Clearings fell nearly to the level of June, 1931; the movements in the last-named from March to June were similar to those of last year.

Bankers' Advances have again fallen, while deposits have increased considerably. The ratio of Advances to Deposits has fallen month by month from 54.8% in February to 48.5% in June.

Treasury Bills at £758 Mn. on July 9th (see table p. 15) reveals a remarkable increase of £122 Mn. compared with a month before. The increase which occurred in the second half of June is officially explained as due to borrowings of £150 Mn. for the Exchange Equalisation Fund.

NET IMPORTS (+) AND EXPORTS (-) OF GOLD, U.K. Coin and Bullion. £000.

	1928	1929	1930	1931	1932
January Fehruary March Awril May June July August Sept'mber October November December	+ 1884 - 1280 - 14860 - 1812 + 2722 + 6835 + 2984 + 796 - 1848 - 6118 - 4054 - 1584	- 3297 - 1857 + 3696 + 2554 + 4856 - 3887 - 16008 - 8641 - 4722 + 369 + 1727 - 10049	+ 5260 + 1004 + 5226 + 5736 - 3236 - 1420 - 3228 + 578 + 430 + 2191 - 404 - 7271		- 4338 - 1440 + 327 + 6715 + 4266 + 9115
	-12715*	—15161	+19415	-32273	+14645

^{~ *} Including special transfer of £19 Mn. to France.

Gold.—According to the official trade returns, imports of gold during June were valued at £15,445,000 and exports at £6,330,000, giving a net surplus of £9,115,000 on the month, and increasing the net imports thereof during 1932 to £14,645,000, though if the sovereigns imported and exported are valued at their bullion content, instead of at their face value, this figure is reduced to about £11,946,000.

Imports from the Union of South Africa at £6,536,000, from U.S.A. at £4,318,000 and from India at £3,142,000, all showed increases compared with May. An interesting item among "other countries" was the £145,000 salved from S.S. Egypt. Of the exports, which were slightly lower than in May, France took £2,488,000, Holland £2,687,000, Belgium £759,000 and Switzerland £278,000.

During the first half of July the surplus of imports continued to be substantial, though in consequence of the cessation of the outflow of gold from the United States it was not so large as in the first half of June. For the fortnight ending July 14th imports were valued at £5,101,000, including £2,819,000 from South Africa, £1,443,000 from India, and £395,000 from the Malay Settlements, while exports totalled £3,041,000, of which £1,348,000 went to France, £1,072,000 to Holland, £395,000 to Belgium, and £186,000 to Switzerland.

PRICES AND WAGES.—Sterling whole-sale prices in general continued their fall during June. In the Board of Trade's Account there was a marked reduction in price in the food group, especially cereals and meat, throughout the month, but materials fell less, especially after June 11th. The Statist in comparing June 30th with May 31st finds a rise in prices of textiles and of miscellaneous materials and only a slight fall in minerals. There has been a rising tendency in the first fortnight of July.

Dollar and sterling prices have moved nearly parallel to each other for nearly two months. According to figures published in the *Financial Times*, sterling prices fell 2½% from the 3rd week of May to the 2nd week of July, while dollar prices fell 1½%. The whole fall from September 1931 was 2% in sterling prices and 13% in dollar prices. On this reckoning, sterling has depreciated only 11%.

The Cost of Living Index showed only the usual seasonal movement in June, and on July 1st was about 3% lower than a year before. The wage index number has fallen about 1½% in twelve months.

TRADE AND OUTPUT.—Imports of materials changed from May to June very nearly as last year, while the value of imports of manufactured goods was nearly the same as in the previous two months. In all, however, there was an increase in the sterling value of imports while normally there is a decrease from May to June.

The sterling value of exports in June 1932 very slightly exceeded the value in June 1931, and the changes in the amount under various categories are small, except for a marked increase in the value of cotton goods. The variations from May to June 1932 are even less important.

The output of both pig-iron and of steel increased in June, but that of the former remains less than it was a year ago.

The output of coal has fallen off as is usual in June, but since the amount in May was low, the industry is very depressed.

CC	AL OU	JTP	UT A	ND	EXPOR	RT. Mn	. To	ns.	
0.4			1929		1930		931		1932
Output { of Coal	April May June	•••	20·8 20·3 19·9	 	19·3 19·3	1	8·2 8·2 6·9	:::	17·7 17·3 15·4
Export incl. Bunkers		··· ::	6·4 7·1 6·6	•••	5·9 6·7 5·5		5·0 4·9 5·2	•••	5·1 4·6 4·8

The figures indicate that the present acuteness of depression is principally in production for the home-market. Over three years, however, the reduction in the two series is approximately in equal proportions.

Unemployment.—Apart from coal mines there was some improvement in employment in June.

INSU	RED	PERS	ONS	UNEM	151'02	ED.	000's.	
	19	31	19	32	1	931	19	32
				June	May	June		June
	18	22	23	27	18	22	23	27
MALES-		C	JAL		0.3	CHER T	нан Со	AL
	188	197	215	220	1371	1384	1652	1616
Temporarily	100	180	122	204	298	307	33 3	318
Females-		Сот	TON		OTI	IER TH	an Cot	TON
Wholly	95	99	54	. 55	365	358	262	254
Temporarily	48	53	61	51	112	129	122	124
Persons-					O	THER 1	HAN C	DAL
Wholly				-	1831	1839	1968	1925
Temporarily		_	-		458	489	516	4.93
Total		•••	•		2289	2328	2484	2418
m							DING CO	
Total	•••	•••	• • • •	•••	2 578	2707	2822	2843

In comparing the figures of 1932 with those of 1931 it is to be remembered that those for 1932 are reduced by the operation of the administrative changes of last Autumn, &c.; we should add about 165,000 to the total in June, 1932, and 155,000 to that for May, 1932.

It was pointed out in connection with the statistics for May that they were inflated to some extent by the prolongation of the Whitsuntide holidays.

The figures for April were (excluding coal) for Males and Females together:—

Wholly unemployed 1,996,500, temporarily 385,500, together 2,382,000. Thus there has been some set-back since April, principally in the Cotton Industry. In fact the percentage recorded as unemployed was less in June than in April in the London, South-Eastern, South-Western and Scottish divisions, but greater in the Midland, North-Eastern, North-Western, Welsh and North-Irish divisions.

SUMMARY OF QUARTERLY STATISTICS.

• • • • • • • • • • • • • • • • • • •	19	29		19	30			19	31		19	32
TOTALS.*	3rd Qr.	4th Qar.	lst Qr.	2nd Qr.	3rd Qr.	4th Qr.	lst Qr.	2nd Qr.	3rd Qr.	4th Qr.	lst Qr.	2nd Qr.
BANK CLEARINGS: Town (ex Metropolitan) Country Provincial (11 Towns) BANKERS' ADVANCES:	£ Mn. 9941 757 386	£ Mn. 10165 790 399	£ Mn. 10292 771 385	£ Mn. 9782 742 333	£ Mn. 9529 720 311	£ Mn. 9180 730 319	£ Mn. 9079 717 319	£ Mn. 8745 677 287	£ Mn. 7932 664 285	£ Mn. 6060 694 308	£ Mn. 6493 689 318	£ Mn 6971 665 298
Average for Quarter NEW CAPITAL ISSUES in Gt. Britain:	979	971	973	962	938	920	913	917	897	890	889	854
All For United Kingdom IMPORTS RETAINED:	28·4 17·5	29·7 17·8	69·5 36·3	72·4 37·4	28·0 19·0	66·3 34·7	45·4 21·2	25·5 6·7	8·2 5·2	9·6 9·5	27·0 20·5	47·8 33·9
Food, Drink and Tobacco Materials:	126	139	114	108	107	123	93	94	96	113	91	85
Partly Manufactured Cotton	12 9 53 74 65 268	14 24 54 92 65 299	11 16 51 78 64 259	10 9 43 62 65 233	9 5 42 56 60 225	9 12 35 57 58 240	8 7 32 47 50 192	8 6 29 43 50 190	7 4 29 40 52 191	9 9 31 49 60 225	6 8 33 48 36 177	4 7 27 38 28 153
EXPORTS, BRITISH: Materials Manufactures—Cotton Other Total British Exports	19 34 112 185	20 31 113 186	19 30 98 164	16 22 88 141	15 19 86 136	15 16 80 129	12 15 63 103	12 13 58 96	11 14 57 93	12 14 56 97	11 17 54 92	11 17 56 95
EXCESS OF IMPORTS: Goods and Bullion	55	125	106	94	87	106	82	114	65	115†	81†	79
TONNAGE OF SHIPS (with cargoes): Entered from abroad Cleared for abroad	0000 1775 1863	Tons 1590 1723	1392 1610	0000 1659 1656	Tons 1756 1738	1565 1581	1329 1358	0000 1528 1477	Tons 1667 1541	1505 1458	1300 1292	1424 1336
PRODUCTION: Coal (13 weeks) Pig-iron (3 months) Steel ,, ,, Shipbuilding (commenced)	6284 202 241 000	Tons 6701 196 237 Tons 499	7014 192 237 427	5911 180 199	Tons 5634 133 165 Tons 161	6164 115 128	5948 101 139	5479 99 126	Tons 5111 84 119 10ns 39	5801 91 134	5750 99 137 26	5304 94 131
INDEX OF PRODUCTION: Bulletin % of 1924 Board of Trade ,,	108.2	114.8	109.6	100.9	90.7	92.7	85·1 95·0	80.6	81.1	90.5	92·3 95·6	83.2

^{*} Except Bankers' Advances, for which mean weekly averages are given.

[†] Including sovereigns at their face value.

te in orter	3rd Qr. 81.7 81	4th Qr. 79.7	lst Qr.	2nd Qr.	₫rd Qr.	4th Qr.	lst Qr.	2nd Qr.	3rd Qr.	4th Qr.	lst Qr.	2nd Qr
		79.7										70-
	or	78.5	74·9 74	72·6 69	69·5 65	65·5 62·5	63·7 61·5	62·1 59·5	59·7 58	63·7 61·5	63·0 60·5	59· 55·
th	79·5 79·5	77·1 76	73·4 72	70·4 66·5	67·0 62·5	63·3 59	62·1 58·5	59·1 56	57·0 55	61·5 58·5	59· 6 57	55· 52·
th	85·8 83	84·6 81	77·7 76	76.6 72.5	74·4 70	69·8 67·5	66·8 66	68 ·1 65	64·9 63	67·8 65·5	69· 5 65·5	67 59
	91.5 94.5	92 9 5	84 90	83 88·5	84 89	81 87·5	76 84	76 84	75 83	77 84	74 82·5	81
t after end	9 9	99	98.5	984	984	984	97	97	96₺	964	95∦	g
9,9 99	135 93-9	124 95·5	120 100-3	112 99·7	103 101·3			86 101:5	87 92.6	82 93·4	83 104	8 12
	th	th 85.8 83 91.5 94.5 after end 99 135 93.9	th 85.8 84.6 83 81 91.5 92 94.5 95 safter end 99 99 135 124 93.9 95.5	th 85.8 84.6 77.7 83 81 76 91.5 92 84 94.5 95 90 after end 99 99 98.5 135 124 120 93.9 95.5 100.3	th 85.8 84.6 77.7 76.6 72.5 91.5 92 84 83 94.5 95 90 88.5 after end 99 99 98.5 984 135 124 120 112 93.9 95.5 100.3 99.7	th 85.8 84.6 77.7 76.6 74.4 83 81 76 72.5 70 91.5 92 84 83 84 94.5 95 90 88.5 89 after end 99 99 98.5 984 984 135 124 120 112 103 93.9 95.5 100.3 99.7 101.3	th 85.8 84.6 77.7 76.6 74.4 69.8 83 81 76 72.5 70 67.5 91.5 92 84 83 84 81 94.5 95 90 88.5 89 87.5 safter end 99 99 98.5 984 984 984 , 135 124 120 112 103 96 93.9 95.5 100.3 99.7 101.3 103.5	th 85.8 84.6 77.7 76.6 74.4 69.8 66.8 87.5 66.8 87.5 95 90 88.5 89 87.5 84 98.4 98.4 97.5 100.3 99.7 101.3 103.5 100.2	th 85.8 84.6 77.7 76.6 74.4 69.8 66.8 68.1 91.5 92 84 83 84 81. 76 76 89.5 89 87.5 84 84 84 84 84 84 84 84 84 84 98.4 98.4	th 35.8 84.6 77.7 76.6 74.4 69.8 66.8 68.1 64.9 91.5 92 84 83 84 81 76 75.5 89 87.5 84 84 83 94.5 95 90 88.5 89 87.5 84 84 84 83 after end 99 99 98.5 984 984 984 97 97 97 96½ 135 124 120 112 103 96 94 86 87 93.9 95.5 100.3 99.7 101.3 103.5 100.2 101.5 92.6	th 85.8 84.6 77.7 76.6 74.4 69.8 66.8 68.1 64.9 67.8 83 81 76 72.5 70 67.5 66 65 63 65.5 91.5 92 84 83 84 81 76 76 76.5 89 87.5 84 84 83 84 81 83 84 81 76 76 75 95 90 88.5 89 87.5 84 84 83 84 81 83 84 81 83 84 81 83 84 81 83 84 81 83 84 81 83 84 81 83 84 84 83 84 83 84 84 83 84 84 83 84 84 83 84 84 83 84 84 83 84 84 83 84 84 83 84 84 83 84 84 83 84 84 83 84 84 83 84 84 83 84 84 84 83 84 84 84 83 84 84 84 85 84 84 84 85 84 84 84 85 84 84 84 85 84 84 85 84 84 85 84 84 85 84 84 84 85 84 84 85 84 84 85 84 85 84 85 84 85 85 85 85 85 85 85 85 85 85 85 85 85	th 85.8 84.6 77.7 76.6 74.4 69.8 66.8 68.1 64.9 67.8 69.5 65.5 91.5 92 84 83 84. 81 76 76.7 88.7 84 84 84 85 84 85. 34fer end 99 99 98.5 984 984 984 97 97 97 96½ 96½ 96¾ 95¾ ,, 135 124 120 112 103 96 94 86 87 82.6 93.4 104

FINANCE, TRADE AND PRODUCTION IN THE UNITED KINGDOM IN THE SECOND QUARTER OF 1932.

In making comparisons between the second quarters of 1931 and 1932 we must always be prepared to allow for the difference this year between sterling values and gold values, and also for changes in prices. It is not practicable to translate from sterling to gold since not only does the ratio involved vary from one group of statistics to another, but also the appropriate ratio is generally not determinable. As some guide to the magnitude of the variation the following figures are appropriate.

WHOLESALE PRICES. September, 1931=100

Averages	;		s	terling U.K.	Dollar U.S.A.	Exchange \$ to £
1st Qr.				105	108	4.86
2nd ,,				103	103	4.86
3rd ,,				100	100	4.75
4th ,,	•••	•••		104	97	3.67
1932						
1st ,,		• • • •		104	93	3.51
2nd ,,		• • • •		100	90	3.72

Thus the movement in sterling prices has been relatively slight.

Finance.—The prices of industrial securities fell heavily till towards the end of June, but recovered early in July on the announcement of the 5% War Loan Conversion scheme, so that by mid-July the index was the same as in mid-April, but 4% lower than in July, 1931. Fixed interest securities followed a more variable course, but the final rise in July brought the index of these prices to 17% above mid-April and 20% above July, 1931.

The Bank-rate was reduced from 3½ to 3% on April 21st, to 2½% on May 12th, and to 2% on June 30th. During July, 1931, it rose from 2½ to 4½%. The rate is now lower than it has been at any time since May, 1897.

There has been some revival in New Capital Issues for the United Kingdom,

but at £34 Mn. in the quarter they were less than in the second quarter of 1930 and earlier years. Issues for Overseas have continued low.

Bankers' Town Clearings, though higher than in the first quarter of 1932, have been considerably less than in former years. Country and Provincial Clearings have varied less; they are both lower than in the first quarter of 1932, but the latter have been higher than a year ago.

Bankers' Advances have fallen considerably during the quarter and were about 6% lower than a year ago. On a long view it is seen that there has been a slow fall since the middle of 1929, after a steady rise in earlier years. In June, 1932, the Advances averaged £838 Mn. as compared with £791 Mn. in the year 1924; the ratio of Advances to Deposits was 48.5% in both these periods; in mid-1929 the ratio was about 55%.

The turn of the tide from net exports to net imports of gold in March this year is shown in the Table on p. 4.

PRICES.—The small Table above shows the general movement of prices. Though in particular months the wholesale prices of food and of materials, and of particular foods and particular materials have followed different courses, the movements have been fairly parallel over moderately long periods. Dollar prices in U.S.A. have fallen very nearly continuously since September, 1929, in all about 33% in two and a-half years. The fall in sterling prices was interrupted in the autumn of 1931, and the fall in two and a-half years has been about 28%.

In the three years from June, 1929, retail food prices have fallen 16% and the Cost of Living Index 11%.

TABLE A. NET IMPORTS OF RAW MATERIALS (EXCLUDING RUBBER) AND CERTAIN PARTLY MANUFACTURED GOODS. DECLARED VALUES. £ Mn.

	1924. Quarterly Average.	199	29. ters.			980. rters.			19 Quan)81. ters.			932. rters
	Arciago	3	4	1	2	3	4	1	2	3	4	i	2
Pig iron, etc Copper, tin, lead, zinc Yarns Leather	1·8 5·4 1·8 2·9	1·3 5·4 2·0 2·9	1·4 5·8 2·1 4·8	1.6 5.0 1.8 3.0	1·2 4·6 1·5 2·9	1·2 3·9 1·3 2·8	1·3 3·4 1·6 3·1	1.0 3.1 1.3 2.3	·9 3·4 1·2 2·5	-9 2·6 1·1 2·4	1.4 2.8 1.6 3.5	2·7 ·5 2·4	1.9 1.2 1.4
Minerals (non-metals) Iron Ore Other Metals Wood Oil Seeds, &c Hides Paper Materials Silk	1·3 2·1 3·7 12·6 12·1 2·0 2·9	1.5 1.8 3.7 17.4 9.7 2.9 3.4	1.4 1.8 3.9 13.9 9.8 2.5 3.7	1·3 1·7 3·7 6·9 9·1 2·7 2·9	1.4 1.6 3.6 9.0 9.2 .8 3.2	1·2 1·0 2·5 15·4 7·3 1·9 3·0 ·2	1:0 :9 2:3 11:0 6:8 :9 3:0	1.0 .7 1.8 4.2 6.6 .9 2.3	.9 .7 2.0 5.4 6.9 .0 2.0	.9 .5 1.5 11.2 5.3 1.2 2.6 .3	.9 .5 1.7 8.0 5.3 1.2 3.0	1.0 .6 1.7 3.9 6.7 2.4 2.8	·7 ·5 1·7 6·1 5·4 ·8 2·0
Other Textiles (except Cotton and Wool) Cotton Wool	3·4 27·5 10·9	2·0 8·6 4·5	4.0 23.6 6.1	4·0 16·3 12·5	2·3 8·7 7·3	1·1 4·6 4·0	1.4 12.0 4.6	1.8 7.3 8.8	1.6 5.5 8.0	·9 3·8 2·1	2·4 9·5 4·9	2·9 8·4 8·4	1·3 6·5 6·9
Total, both groups and miscellaneous	92.8	70.3	88.2	75.7	59· 8	54.3	5 0 ·0	45.5	4 2·9	39.5	49.1	47.8	36 ·6
Total. excl. cotton and wool	54.4	57.2	58.5	46.9	43.6	45.7	39·4	29.4	29.4	33.6	34.7	31.0	23.2

TABLE B. EXPORTED MANUFACTURES-DECLARED VALUES. £ Mn.

			1924 Qrly. Av.		929 irters. 4	1	Qua 2	930 rters. 3	4	1		931 rters. 3	4	Quar	32 ters. 2
Coke Earthenware Iron & Steel Other Metals Cutlery Electrical Goods Machinery Wood Cotton Wool Silk Other Textiles Apparel Chemicals Clis Leather Paper, Vehicles* Rubber †	 		1.6 3.2 18.5 3.9 2.2 2.7 11.2 49.8 17.0 6.9 7.5 6.4 2.1.8 2.3 6.7	1·1 3·7 16·3 4·6 2·4 3·2 13·3 7·1 15·3 7·2 6·2 2·1 2·5 12·5 12·5	1.2 3.7 17.6 4.6 2.5 3.8 14.3 .99 11.6 6.6 6.7 7.7 2.2 12.8 11.7	1.0 3.3 15.4 3.7 2.0 3.3 13.0 6.3 12.2 4 5.8 6.2 2.3 11.5 2.3	6 3:1 13:3 3:0 1:9 2:9 12:0 21:6 7:2 4 4:3 5:6 1:5 2:1 15:7	.9 3.0 11.9 2.6 1.8 3.1 11.0 19.5 9.7 4.6 5.3 5.1 1.2 2.1	1·0 2·6 10·8 2·7 1·7 2·7 11·0 ·5 16·2 7·8 ·3 4·1 4·4 5·0 1·1 1·9 ·6	.8 2:0 8:0 2:0 1:3 2:3 8:8 1:5 2:7 7:4 3:5 3:5 1:6 8:3 1:6 8:5	2.5 2.2 7.8 1.6 1.9 8.2 1.34 1.50 3.0 4.6 1.8 1.5 9.0 6	·7 2:1 6:9 1:7 1:6 7:3 14:1 6:8 3:9 1:6 7:0 1:6 7:5	·9 2·1 7·7 1·6 1·6 8·5 4 13·9 ·2 3·4 4·2 3·4 4·2 1·7 4·5	7 1.8 7.1 1.5 1.4 7.9 .3 16.7 6.6 .2 3.3 2 4.3 1.2 4.3 1.6 4.4 4.5	.5 2.0 7.1 1.7 1.5 1.4 8.2 .3 16.6 5.3 3.4 4.8 1.2 .7 1.7 7.5
Total, including	, Мі 	scel-	154.7	146.2	143-6	128.4	110.3	104:8	96:3	78:4	72.0	70.7	69.5	70.2	72:8

^{*} Including rubber tyres after 1924.

[†] Excluding rubber tyres after 1924.

The details of the Cost of Living Index number are given below.

COST OF	LIVI	NG-JU	JLY 1914=100	
End June		1929	1931	1932
Food Rent Clothing Fuel and Light Miscellaneous		149 153 217 172 180	130 154 195 170 175	125 154 187 167 172
All	SALE	161 PRICE	147 ES, 1913=100	143
Food Materials		143 131	127 1 17	113 98

The relationship between wholesale and retail prices is that which experience leads us to expect.

Wage rates have been very nearly stationary since February, after a very slow fall, amounting to 5% in all, since 1927.

TRADE AND PRODUCTION. — When allowance is made for seasonal variation and change of prices it is found that imports of food and of raw materials in the second quarter of 1932 have been nearly the same in aggregate as in the first quarter of 1932 and in the second quarter of 1931 (see Table A, p. 8). With the imposition of tariffs, imports of manufactured goods fell off rapidly last December and further in April.

Exports as a whole and of manufactured goods in particular have been nearly constant in value in all months since last September, except for an unexplained spurt in April. Also the aggregate sterling values have been nearly the same quarter by quarter from April, 1931. Table B, p. 8, however, shows that within the category "Manufactures" there has been considerable variation, an increase in exports of cotton goods balancing decrease in other classes.

The Board of Trade estimates* that in the past quarter retained imports of raw materials were more than 3% greater in volume than in the second quarter of 1931 but 3% less than in 1930. There was an increase of 11% in the volume of exported manufactures compared with 1931 but a decrease of 20% compared with 1930. Average values of the manufac-

tures exported were nearly 9% lower than a year ago and 17% lower than two years ago.

The Table (p. 10) of the distribution of exports, which should be studied in detail, shows that the destinations of many commodities have varied.

The visible adverse balance† of trade was nearly the same in the first quarter of 1932 as a year earlier, but in the second quarter of 1932 it was £36 Mn. less than in the second quarter of 1931.

Output of coal, iron and steel was in each case lower in the second quarter of 1932 than in the first, but steel was a little better than a year before. In this connection the Table of Iron and Steel Statistics on p. 11 should be studied. Of ship-building it can only be said that it was extraordinarily depressed.

In the general Index of Production these reductions are outweighed by progress in other directions, especially in textiles. (See p. 13.)

The tonnage of shipping (British and Foreign) laid up in the principal ports of the United Kingdom was 1,833,000 net tons on July 1st, 1932, as compared with 1,477,000 on April 1st.

EMPLOYMENT.—There has not been much change in recent months in the number of persons unemployed. The seasonal decrease expected in the spring was less than normal, and there has been a rather exceptional increase in the number of coal miners temporarily unemployed.

When allowances are made changes in administration and classification, and for the natural increase of the insured population, it is found that though the number unemployed has increased 250,000 or 300,000 in twelve months, the number of insured persons at work decreased only from 9,470,000 in the second quarter of 1931 to 9,430,000 in the second quarter of 1932. This is not inconsistent with the increase in the same period in the Index of Production which covers a different range of occupations.

^{*} See Board of Trade Journal, July 21st, 1932, p. 76.

Value of chief articles exported in the 2nd Qrs. of 1931 and 1932 to the principal countries concerned.

	2nd Qr. 1931 193 2		2nd Qr. 1931 1932		2nd Qr. 1931 1932
	£000		£000		£000
POTTERY, Erc. U.S.A	98 75 15 17 57 30 55 52 39 45 23 45 31 26	RAIL LOCOMOTIVES (Steam and other) Argentine Rest of S. America British S. Africa British India Other Countries	80 1 13 13 13 1 — 85 15 165 61	COTTON PIECE GOODS—continued India & Ceylon Straits Settlements & Malay States	1549 2475 101 245 112 295 657 1052 147 240 191 170
Canada Other Countries	234 182 271 234 823 703	MACHINERY (Electrical). Europe		Other Countries To S. Ireland	1094 1408 8461 11339 213 218
TO S. Ireland PIG IRON & FERRO ALLOYS Belgium France Italy U.S.A	20 15 23 7 14 13 12 56	S. America S. Africa	93 189 178 186 28 31	WOOL TOPS & WORSTED YARN. Sweden	129 113 367 323 40 58 213 163 496 828
U.S.A Other Countries	224 112 293 203	Russia	256 46	To S. Ireland†	
PLATES & SHEETS (not coated). Japan Argentine British India Australia & New Zealand Other Countries	67 43 122 60 50 46 39 51 235 25	Spain	13 21 109 88 21 21 35 37 152 113 22 9 30 10 167 166	Japan	250 173 105 100 107 100 182 13 39 4 235 35 88 11 157 16
GALVANISED SHEETS. Dutch E. Indies Argentine, Uruguay British W. Africa British S. Africa British India	16 1 37 60 111 59	TEXTILE MACHINERY. Russia Germany Netherlands France Rest of Europe	51 66 122 44 231 270 112 137	Chile and Peru Brazil, Uruguay, Argentine British S. Africa Australia New Zealand Canada Other Countries	35 2 253 16 172 13 9 1 55 9 297 28 454 59
Australia	51 2 450 45 824 82	Japan	35 74 39 38 77 84 432 559 24 31	To S. Ireland LINEN PIECE GOODS. U.S.A Cuba	339 36 20 2
SHEETS (Tinned, etc.) Norway	. 62 8 . 38 1 . 175 15 . 33 1	COTTON YARN. Norway, Sweden, Denmark Germany and Poland Netherlands	. 261 217	Canada	761 83 264 18
Spain Italy Dutch E. Indies China (with Hong Kong) Japan Brazil Argentine	16 4 38 8 76 12 81 13 58 8	France	95 17 202 75 29 60 75 148 51 55 66 32	Australia	55 33 3 524 64 879 93
British India Straits Setts. and Malay Australia Canada Other Countries	87 11 123 21 153 16	British India	216 37' 111 23' 66 13 55 5 297 36' 2679 2679	BOOTS AND SHOES. British S. Africa New Zealand Other Countries	. 37
COPPER MANUFACTURES Egypt	14 1 40 5 10 1 25	Norway, Sweden, Denmark. Germany Netherlands Switzerland Turkey Rest of Europe	480 54 250 17 176 26 275 17 133 12 587 49	To S. Ireland	. 54 74 . 118
TIN (Blocks, etc.) Sweden Germany France U.S.A Canada Other Countries	25 1 10 46 4 39 21 7 1	Dutch E. Indies China (with Hong Kong) U.S.A Peru & Chile Brazil Argentine, Uruguay Colombia	189 31 215 48 147 13 71 5 17 2 693 71 183 20	To S. Ireland	. 101 1 . 117 1 . 29 . 245 3 . 121 1
	253 44	Foreign W. & E. Africa	169 30		512 6

IRON AND STEEL STATISTICS FOR U.K.

		I	IG-IRC	N.†				CRUD	L.	EXPORTS OF IRON & STEEL		
		Produc- tion	+ Im- ports	- Ex- ports	=Home Cons'mp- tion	% Imports to Home Consump- tion	Pro- duction	*Im- ports	Home Con- sumption	% Imports to Home Con- sumption	Semi- Finished	Finished
1913	Qrly. aver'ge	2565	46	236	2375	1.8	1916	215	2131	10	209	751
1923 1924 1925 1926 1927 1928	,, ,, ,, ,,	1860 1840 1559 610 1826 1653	27 77 71 124 152 30	223 150 140 148 83 114	1664 1756 1490 653 1895 1569	1.6 4.4 4.8 1.9 8.0 1.8	2122 2054 1849 890 2275 2131	138 271 289 390 421 286	2263 2324 2139 1280 2695 2417	6·1 11·7 13·5 30·5 15·6 11·8	540 470 188 145 251 245	1153 1146 600 521 712 702
1929	1 2 3 4	1674 1924 2018 1963	30 29 55 39	143 156 167 79	1561 1797 1906 1923	1·9 1·6 8·7 2·0	2404 2483 2406 2366	200 268 252 270	2604 2751 2658 2636	7·6 9·7 9·5 10·2	265 237 250 258	737 692 653 716
1930	1 2 3 4	1923 1797 1328 1149	72 68 109 62	107 84 87 39	1888 1781 1350 1172	3·8 3·8 8·1 5·3	2374 1988 1653 1284	334 245 210 300	2708 2233 1863 1584	12·3 10·9 11·3 18·9	225 159 150 139	647 567 506 426
1931	1 2 3 4	1012 993 841 911	67 83 62 93	48 63 44 47	1031 1014 859 958	6·5 8·2 7·2 9·7	1389 1261 1186 1339	227 294 302 434	1616 1555 1489 1773	14·0 18·9 20·3 24·5	99 98 88 106	331 355 316 374
1932	1 2	989 944	58 42	33 43	1014 943	5·7 4·5	1373 1309	266 212	1639 1521	16·2 13·9	99 98	339 336

[†] Inc. Ferrous Alloys.

STOCKS OF STAPLE COMMODITIES

Table supplementary to the summary table, p. 2, Special Mem. 32

Beg	inning of	(1) American Cotton. 1,000 bales	(2) Copper. 1,000 tons.	(3) Tin.§ 1,000 tons.	1,000 U.S.	ad.	(5) Spelter 1,000 tons.	(6) Rubber. 1,000 tons.	(7) Sugar. 1,000 tons.	(8) Tea. Mn. lbs.	(9) Coffee. Mn. bags.	(10) Wheat. Mn. bush.	(11) Petrol- eum. Mn. barrels.
1930	April July Oct	4,970	479 522 545	42·6 50·7 49·1	41·1 49·6 65·8	6·8 7·4 6·2	90 109 131	426 430 <u>1483</u>	6,125 6,196 3,629	210 209 222	30·5 31·4 32·8	518 379 544	639 632 613
1931	Jan	7,000 7,051	535 510 523 551	52.6 60.0 59.5 61.5	92·2 116·5 119·2 127·1	8·3 13·5 14·0 13·6	140 140 143 146	506 547 552 543	7,018 8,453 8,270 7,779	262 242 212 205	32·2 31·1 30·3 29·1	583 600 531 490	603 591 592 591
	July	7,571 8,166 8,553 8,648	564 582 596 623 *	62:0 61:7 63:1 61:9 61:5 61:2	124·6 117·8 119·6 118·6 124·9 128·6	13·5 14·4 13·9 13·2 12·5 12·5	144 139 138 138 139 138	545 561 568 570 600 615	7,007 6,086 7,160 6,811 7,621 8,897	203 198 206 195 207 2 19	28·2 30·5 32·6 34·0 34·8 35·8	445 463 500 501 528 571	587 583 570 557 553 557
1932	Jan. Feb. March April May June	8,713 8,713 8,744 9,115	* * * * *	61.7 61.4 61.0 61.5 61.7 61.9	135·2 143·1 148·1 151·0 151·2 155·2	13·1 13·3 13·8 14·7 14·1 13·9	138 137 136 138 140 140	644 651 644 646 646 644	8,577 8,247 8,641 9,091 8,738 8,387	260 248 240 213 171 182	36·9 36·9 36·7 36·9 35·8 33·0	638 660 640 623	568 568 570 570 571 571
	July	10,176†	*	60.9		15.7	140			182			

^{*} Not Available.

§ Revised.

- (1) Total supply seasonally corrected, exclusive of European and Asiatic mill stocks.
- (2) Total supply outside hands of consumers less Japan Stocks.
- (3) London Metal Exchange Visible Supply plus "Tin" estimate of Straits Stocks.
- (4) U.S. and Mexico refined stocks to April, 1930. U.S. only since: U.K. stocks in official warehouses.
- (5) Visible supply in U.K. and U.S.

- (6) An estimate of World's stocks supplied by Rubber Growers'
 Association.
 (7) Total visible supply, exclusive of Interior Stocks in Cuba prior
 to Oct., 1926.
 (8) Bonded Warehouse Stocks to Jan., 1929, Tea Brokers' Assoc.
 since since
- since.
- since.

 (9) Visible supply in Brazil (Ports and Interior, including
 São Paulo Government stock), Europe and U.S.A.

 (10) Stanford Wheat Studies Estimate of World's Visible Supply.

 (11) Stocks of Crude and Refined Oils in U.S.

^{*} Blooms, Billets, Sheet and Tinplate Bars.

[†] Provisional.

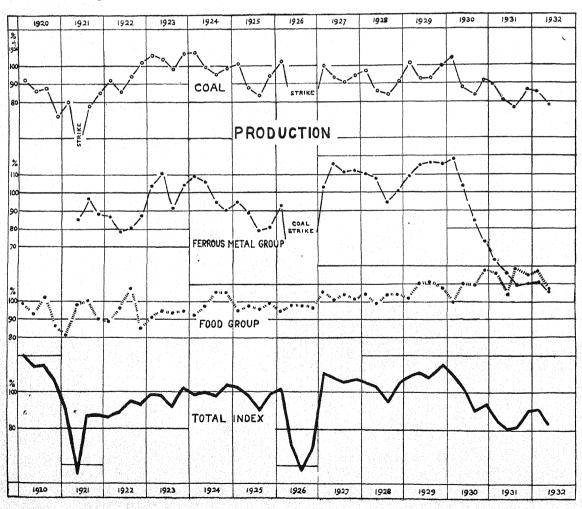
t "U.S.A. Afloat" no longer available.

THE PHYSICAL VOLUME OF PRODUCTION.

THE Index Number of Production for the Second quarter of 1932 is 83.2; this shows a decline of 9 points from the figure for the first quarter, and a decline is usual from the first quarter to the second quarter owing partly to the seasonal decline in Coal Output. But the 1932 figure is above the 1931 figure, (80.6), for the second quarter, so that, so far, the abysmal depths of 1931 are not being reached in 1932. Low figures are notice-

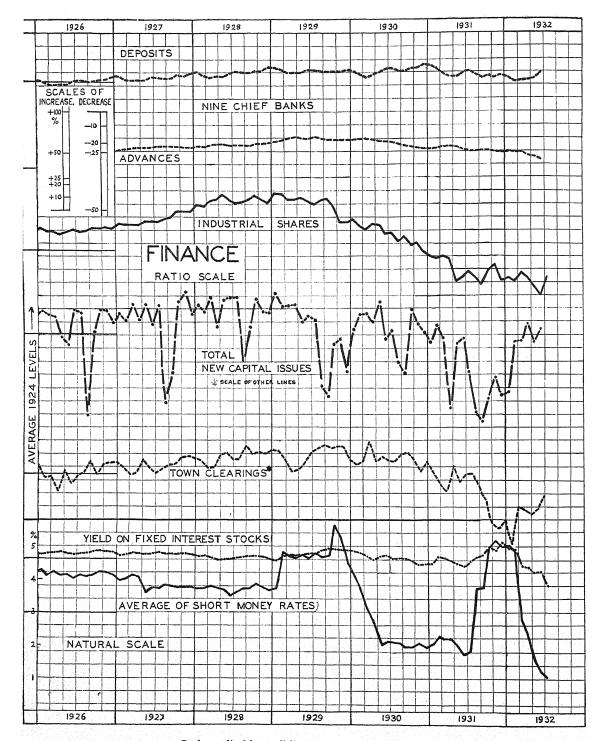
able in the Coal Output (78.8), and in Iron and Steel where another very low figure is recorded, mainly due to the further decline in the Shipbuilding figure. The Non-Ferrous metals have a low proportionate Output, but the Textile figure is still high and the Chemical figure is being maintained at the slightly higher levels recently achieved. The Food Group figure shows a decline on the first quarter but is still high.

QUARTERLY INDEX OF PRODUCTION.



QUARTERLY INDEX NUMBERS OF PRODUCTION. Average 1924=100.

Group	Industry	Average quarterly production, 1924.	Weights	Year. 1924	1925	1926	1367	1928	1929	1930	1931	1932
 ::		rage erly stion,	hts.	iguama guama	H0104	чом4	- 004	наюч	4004	. HQX4	- Нам4	
T	Cosl- mining.	000 tons 67,308	222	107-3 99-3 95-0 98-4	100.8 87.8 83.6 94.4	102:5 29:8 10:4 41:6	100.0 93.5 90.8 94.1	97.1 86.1 83.8 91.4	101.2 93.1 93.3 99.5	104·2 87·8 83·7 91·6	88:3 81:4 76:2 86:2	85·4 78·8
	Pig Iron.	000 tons 1,827	12	105.0 102.8 97.1 95.3	94.4 90.6 75.9 80.5	87.8 36.7 2.4 6.8	91.8 112:3 100:3 94:8	93:3 94:0 85:4	91.6 105:3 110:5 107:5	105·1 98·4 72·7 63·9	55.4 54.4 46.0 49.9	54.2 51.7
	Steel.	000 tons 2,050	36	111:2 106:0 90:8 92:8	94.7 89.5 83.3 93.3	103·8 56·1 8·8 24·9	122:3 121:1 102:8 97:7	106:5 102:7 99:2 107:4	117.0 121.1 120.0 115.4	118.4 97.0 82.5 64.0	67.7 62.9 57.9 66.8	67.0
11.	Ship- building	000 tons 1,373	e3 63	100·0 106·7 103·1 90·1	79·5 74·1 67·6 57·4	55.6 55.6 48.6 48.1	87.2 100.6 111.8 114.7	104·9 87·6 79·4 90·5	98°8 105°9 105°4 113°6	117·6 101·4 81·4 66·2	50.6 40.5 30.4 29.2	27·2 20·5
	Ship- Building Vehicles	tons 9,929	g	142-7 112-9 78-3 66-1	167.9 150.0 111.9 98.5	188·6 149·1 94·0 82·6	67.0 155.7 196.3 244.6	199·3 265·1 154·2 126·2	139.9 131.6 152.8 149.9	149.0 180.8 151.2 189.8	104·9 75·7 76·2 22·5	31·3 18·4
	Group Index.		341	109·0 106·2 94·6 90·6	95·1 89·2 79·4 81·1	92.8 49.4 25.1 32.7	103-4 116-0 111-3 112-0	110·1 107·7 94·9 100·8	109.1 114.8 116.4 115.9	118·1 104·1 85·2 72·9	63.2 55.8 49.1 50.1	50-9 46-2
	Copper.	tons 39,626	99	96·9 93·8 104·1 105·0	97.4 95.7 104.8 94.3	110°9 95°8 118°8 116°7	119-7 132-0 112-4 125-9	125.8 126.1 120.6 118.2	117.4 120.8 114.7 120.1	103·1 121·1 129·4 114·5	88.6 104.2 85.0 96.5	95.4 95.8
HI.	Lead, Tin and Zinc.	tons 87,967	69	96.4 87.3 118.5 97.7	102.3 108.9 117.0 124.9	123·8 111·1 110·4 121·5	131.6 115.8 124.4 114.2	109.9 120.0 94.3 106.5	106·1 120·3 120·4 109·7	119-7 113-7 100-4 123-9	96.0 138.1 115.7 123.6	115·6 95·2
	Group Index.		25	96.6 90.4 111.6 101.2	100.0 102.6 111.2 110.3	117.6 103.8 114.4 119.2	125.9 123.5 118.7 119.8	117·5 122·9 106·9 112·1	111.5 120.5 117.7 114.7	111.8 117.2 114.3 119.4	92.4 121.9 101.0 110.6	105·9 95·5
	Cotton.	bales 689	88	104·2 90·4 79·7 126·0	136.9 120.6 101.6 135.1	135.0 102.8 81.7 107.2	142.8 120.2 109.6 109.3	114.4 109.0 92.9 115.0	117.6 111.4 85.8 118.6	107·3 86·4 61·3 81·3	71.7 78:1 74:3 102:0	115.6 105.9 100.9 199.1 111.6 95.2 95.5 94.0 216.3* 107.3
IV.	Silk.†		10	74.6 94.3 111.5 119.5	112:2 152:0 81:9 79:3	92.7 96.5 86.3 105.0	108:2 101:8 96:9 147:6	151·1 136·6 140·8 158·0	147.3 142.2 162.8 175.0	159.0 125.0 127.2 140.7	142.0 139.7 145.7 177.9	199·1 216·3*
	Group Index.		216	101.0 90.8 83.2 125.3	134.2 124.0 99.5 129.0	130.4 102.1 82.2 107.0	139.0 118.2 108.2 113.5	118.4 112.0 98.1 119.7	120·8 114·7 94·1 124·5	112.9 90.6 68.4 87.7	79.3 84.8 82.1 110.2	111.6 107.3*
	Wheat and Flour.	000 cwts. 31,914	09	85.4 99.6 111.6 103.3	89.2 89.3 91.1	82.2 87.0 97.9 84.0	92.4 103.6 98:0 92:3	93:2 86:4 92:7 91:8	87.0 94.9 100.1 91.4	81.3 91.8 99.8 101.9	89.9 97.5 110.8 114.2	98.0 95.4
Δ	Cocoa.	cwts. 259,231	LI.	109·6 89·6 88·7 112·1	109·9 113·3 99·2 112·1	119.3 114.4 87.6 113.9	144.3 82.4 102.8 101.3	121.4 105.7 102.5 101.0	115.5 116.7 103.4 108.3	99.9 121.7 96.5 121.6	151.2 95.9 118.6 99.5	168·0 106·2
	Tobacco	000 lbs. 36,477	778	95.6 99.7 101.9 102.7	96.3 105.2 110.2 108.5	102:5 112:7 104:8 112:8	107.2 110.0 118.7 121.9	116·9 124·3 127·7 133·6	123·3 139·1 141·1 142·1	138.3 136.7 138.0 145.4	142.9 122.5 132.8 128.4	10 121.5 117.2 133.8 107.5
	Group Index.		500	92.5 97.8 104.9	94.8 97.8 96.0 99.4	95.3 98.6 97.8 96.8	105.7 101.4 104.2 101.6	104.4 99.3 103.5 104.2	101.9 110.6 111.3 107.9	99.8 110.3 109.3 117.1	115·3 103·8 118·1 115·2	117.2
VI	Oil Seed crush- ing.	000 tons 435-3		109·9 97·8 87·8 104·5	118·2 91·1 93·0 84·6	92.8 84.6 80.4 59.7	82.8 77.5 66.8 70.6	98.8 99.8 79.5	109·2 86·0 69·7 87·7	79.7 69.2 59.1 75.7	82.0 86.4 67.4 75.8	86.2
I.	Index (incl. heavy Chemi- cals.)		62	95.4 103.0 101.0 101.2	107.6 94.4 82.4 87.4	90.0 79.5 72.6 84.4	107·0 92·6 92·8 97·9	104.8 103.8 93.3 102.7	100·1 102·1 103·4 105·4	94.5 88.8 97.7 84.2	83.9 82.5 73.9 86.5	89.5 89.0*
VII.	Paper.	000 tons 244.3	86	53·7 104·9 127·2 114·2	77.3 99.4 108.6 111.2	91.7 114.4 114.8 103.5	109·0 112·1 126·4 124·2	82.4 118.0 99.8 122.9	111.2 136.6 139.7 147.0	116·3 127·0 125·4 122·5	101.6 94.0 121.1 142.6	155·6 110·2
	Final Index.		1183	98.8 99.9 97.9 103.8	102.6 98.2 99.1	102.2 72.0 57.3 69.7	110.8 108.1 105.9 107.4	105.7 103.7 95.4 105.2	108°3 111°0 108°3 114°8	109.6 100.9 90.7 92.7	85.1 80.6 81.1 90.5	92.3



Scale applicable to all lines except the two lowest.

* NORMAL SEASONAL CHANGE REMOVED.

	sı	ocks &	SHAR	ES_	NE		BAN	K CLE	ARIN				OT	er i	BANKI	NG.	-1		øj.		MONE	
		strials × =	Fix Inte		CAPI	TAL JES		on Ban ring Ho		P10-		k of and.				ering 1ks.			BILLS	dex.	rate.	ġ
	New Index of Price	Sensitive Index Month-to-Month Variations	Index of Puce	Index of Yield	for U.K.	for Abroad.	To	wn.	Country.	11 Towns.	Private Deposits.	Bank and Currency Notes 1	Deposits.	Discounts.	Advances.	finvest- ments.	Ratio of Cash to Deposits.	Ratio of dyances to Deposits.	TREASURY	ort Money Ind	Day to day re	3 monshs' rats.
	%	∞ ≅ %_	%_	%	£Mn	£Mn,	£N	In.	£Mn.	£Mn	£Mn.	£Mn.		£Mn.		≴Mn.	%	W %	£Mn.	Sho	%	%
1924 Average	100		100	100	7.4	11.2	2070	*	226	147	109	390	1632	242	791	324	11.7	48.5	601	100	2 43	3 ·45
1926 1st Qr. Av 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	114 113 114 116	•••	96 8 97:0 96:2 95:5	103·3 103·1 103·9 104·7	14 7 8·1 8·5 15·7	11·3 9 8 6·2 10·2	2070 2100 1990 2150	1970 2040 21 5 0 22 50	231 219 205 226	141 123 117 128	107· 103 108 104	371 381 374 371	1610 1600 1634 1662	209 195 226 225	866 875 874 887	255 244 247 251	11 7 11 9 11 8 11 8	53 8 54 6 53·5 53·4	611 578 624 667	140 137 137 140	4·15 3·92 3·95 4·02	4·54 4·37 4·40 4·63
1927 1st Qr. Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,, 1928	119 121 124 131		97·0 96·6 96·6 97·3	102·9 103·5 103·5 102·8	17 8 16·5 7·2 17·2	9 8 5·8 6·8 20·4	2228 2253 2040 2240	2117 2190 2200 2340	251 238 224 238	135 131 129 140	105 98 100 101	364 377 376 376	1660 1659 1672 1711	220 200 211 233	803 913 919 916	245 237 236 236	11.6 11.7 11.5 11.5	54·5 55·1 54·9 53·5	642 576 609 651	135 127 126 125	3·91 3·66 3·59	4·23 4·07 4·33 4·32
1st Qr. Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	138 145 141 143		98.6 100.4 98.9 99.0	101·4 99·6 101·2 101·0	18·5 20·6 12·4 21·6	16:0 12:5 9:8 8:9	2320 2430 2240 2330	2 210 2360 2 420 2 440	237 242 227 242	138 133 122 132	105 100 102 101	369 374 375 370	1706 1703 1738 1770	226 210 251 252	923 934 932 942	241 232 239 243	11·1 11·1 11·1	54·2 54·8 53·3 53·3	594 541 605 712	125 121 123 126	3·58 3·52 3·52 3·61	4·22 3·91 4·16 4·36
JAN FEB MAR APR MAY JUNE	143 143	$ \begin{array}{r r} -10 \\ -34 \\ 0 \\ +03 \\ -27 \end{array} $	101·1 98·2 97·1 97·9 97·2 97·3	98·9 101·9 102·9 102·3 102 9 103·5	18·0 26·2 24·8 28·8 12·3 14·0	29·4 6·8 9·0 6·0 8·8 11·4	2570 2440 2230 2210 2 250 2 560	2460 2310 2120 2150 2250 2430	250 236 237 253 241 235	131 138 136 127 118 122	68 ^{**} 37 58+36 63+38 61+36 61+36	353 355 359 363	1809 1777 1739 1743 1732 1770	274 260 214 191 195 216	956 968 980 987 977 978	250 246 244 244 244 244	10:9 10:5 10:6 10:8 10:9	52 9 54 5 56 4 56 6 56 4 55 3	780 774 712 707 702 756	125 162 160 158 159 156	3·54 5·06 4·58 4·44 4·69 4·23	4·31 5·23 5·38 5·27 5·23 5·28
JULY AUG. SEPT OCT. NOV. DEC.	144 135 121	$ \begin{vmatrix} -4.2 \\ +2.5 \\ +1.1 \\ -5.2 \\ -11.3 \\ +0.5 \end{vmatrix} $	96·0 94·2 93·5 93·9 94·1 94·5	104.0 106.2 107.0 106.5 106.3 105.8	13·9 2·2 1·5 7·5 6·3 4·0	8:3 1:4 1:2 4:0 6:6 1:2	2370 2250 2410 2440 2450 2170	2510 2560 2510 2530 2530 2520	248 226 224 248 242 248	129 112 114 123 123 127	63+36 65+36 63+36 70+37 55+42 58+36	371 362 360 358	1778 1759 1754 1765 1761 1773	234 225 222 227 231 227	985 980 971 971 970 971	242 242 242 241 235 236	10·7 10·7 10·9 10·7 10·6 11·3	55·4 55·7 55·4 55·0 55·4 54·8	757 776 772 787 792 8 05	160 156 157 189 177 151	4·73 4·13 4·21 5·27 5·38 4·64	5·33 5·47 5·49 6·22 5·66 4·80
1930 JAN FEB MAR APR. MAY JUNE	119 116 120 119	+ 0.3 - 4.6 - 2.6 + 6.5 - 3.4 - 7.0	95·5 96·1 98·1 100·3 98·4 97·7	104·7 104·2 102·0 99·7 101·7 102·4	11.3 8.0 16.9 11.9 17.8 7.7	5.6 18.2 9.4 9.4 20.1 5.5	2340 2400 2770 2340 2360 2430	2240 2280 2630 2280 2360 2300	250 236 234 249 235 228	104	64+36 59+36 59+36 66+36 58+36 59+38	348 350 361 356	1767 1714 1682 1712 1742 1788	243 218 181 207 246 273	970 973 976 970 957 958	233 229 225 225 231 233	10.9 10.6 10.8 10.9 10.7 10.6	54·9 56·8 58·0 56·7 54·9 53·6	758 678 615 571 585 618	136 125 104 82 68 71	4·04 3·85 3·35 2·23 1·94 2·13	4·11 3·96 3·03 2·49 2·14 2·33
JULY AUG SEPT OCT NOV DEC	106 110 103 105	+ 0.6 - 7.2 + 6.0 - 9.9 + 2.8 - 5.8	99·7 99·2 99·7 101·3 103·9 103·3	100·4 100·9 100·4 98·7 96·3 96·9	13·1 3·5 2·4 12·8 11·5 10·4	3·3 3·1 2·6 17·7 8·4 5·4	2150 2100 2340 2220 2070 2150	2280 2400 2430 2300 2140 2290	233 224 207 230 226 226	103 95 89 95 100 103	70+36 66+34 65+34 66+36 60+33 64+33	367 358 357	1794 1767 1764 1791 1801 1839	284 279 284 296 310 320	952 936 927 924 920 915	241 250 255 257 265 269	10.7 10.6 10.6 10.5 10.5 11.1	53·1 53·0 52·6 51·6 51·1 49·7	633 648 649 656 672 706	69 69 65 65 70 66	1:88 1:96 1:69 1:65 2:04 1:52	2·37 2·29 2·09 2·11 2·23 2·30
JAN. JAN. FEB. MAR. APR. MAY JUNE.	. 80	- 4·0 - 3·5 + 2·7 - 3·0 -17·0 - 1·1	103.5 98.5 99.6 100.2 103.0 104.6	96·8 101·8 100·6 99·9 97·6 96·0	7·8 6•0 7·4 1·4 ·9 4·4	4·5 13·6 6·0 ·3 10·1 8·4	2210 2060 1960 2270 1980 2196	2110 1950 1860 2210 1980 2080	238 218 213 228 218 205	98 94 93	65+33 58+34 59+33 61+35 62+34 71+34	350 354 35 3	1836 1782 1726 1698 1700 1744	328 299 238 209 222 264	909 909 921 925 919 908	281 293 295 292 274 272	10.6 10.5 10.3 10.4 10.5	54.1	784 646 587 559 571 623	68 76 75 75 68 60	1.87 2.50 2.23 2.31 1.98 1.56	2·17 2·52 2·62 2·61 2·26 2·12
JULY AUG SEPT OCT NOV DEC.	78 87 92	+ 8·1 - 6·8 - 3·3 +15·8 + 8·8 - 16·2	99·2 97·9 92·6 94·0	108.1	2·3 1·6 1·3 2·5 4·3 2·7	2·9 0·1	1980 1690 1680 1430 1380 1410	2090 1930 1740 1480 1430 1510	218 202 192 217 212 230	96 87 79 98 93 97	66+34 58+35 58+50 70+51 60+38 73+38	359 360 352 357 355 364	1750 1708 1675 1688 1670 1700	279 261 234 235 2 38 2 44	898 895 897 896 887 887	283 286 288 288 284 281	10·3 10·4 10·2 10·2 10·2 10·6	52·4 53·6 53·1	626	62 125 126 168 175 169	1.75 3.58 3.69 4.31 5.02 4.21	2·14 4·31 4·28 5·71 5·76 5 84
J932 JAN. FEB. MAR. APR. MAY JUNE	80·5 86 83 77	+ 0.5 - 2.2 + 7.2 - 6.0 -11.1 - 7.4	103·4 104·5 109·4	107·5 107·2 97·0 96·0 91·7 92·5	9·1 11·1 9·6 8·9 15·4	2·6 2·9 1·0 8·4 3·4 2·1	1700 1640 164 0	1270 1660 1620 1590 1640 1800	230 208 214 216 215 197	96 98 102 95 94 90	69+38 70+32 73+38 73+38 78+33 88+34	355 345 354 358 358 357	1677 1621 1639 1643 1661 1727	237 205 215 238 245 276	891 888 888 866 858 838	268 264 266 272 284 238	10.5 10.5 10.4 10.4 10.6 10.1	54·2 52·7 51·7	612 617	169 163 97 79 54 42	4·46 4·27 2·48 1·98 1·38 -94	5.65 5.11 2.64 2.36 1.57 1.06
JULY	1	+16-1		82.7							8 3+3							,	750	35	-67	-98
	-	·		1		1			l .	<u> </u>	<u> </u>		<u> </u>			~					J	·

STOCKS & SHARES-NEW CAPITAL ISSUES-BANK CLEARINGS-

Exclusive of Investments in Affiliated Banks.

* CORMAL SEASONAL CHANGE REMOVED.

BANK OF ENGLAND-PRINCIPAL BANKS-TREASURY BILLS-SHORT MONEY INDEX- Index Nos. of Prices and Yield as percentage of 1924 level; on 15th of month.

Sensitive Index.—Geometric Mean of monthly percentage changes.
Issues during month in Gt. Britain (a), for U. K. (b), for Abroad, excluding Government loans, etc.—See MONTHLY REVIEW OF THE MIDIAND BANK, LTD.
Total of Town Clearings (i.e., excluding Metropolitan) of London Bankers' Clearing House for 3 weeks covering 2 Stock Exchange settlement days. Consols settlement day, and 4th of following month, Country Clearings of London Bankers' Clearing from the Country Clearings of London Bankers' Clearing for 11 towns—proportionate totals for 24 working days.

Deposits, other than public, 11th-17th of month.
Bank Notes and Currency Notes in circulation 11th-17th of month. Issues amalgamated. November 22nd, 1928.
"Current, Deposit and other accounts," etc. Averages for the month of 9 clearing banks (i.e.—excluding the National Bank, Ltd.).—MONTHLY REVIEW OF THE MIDIAND BANK, LTD.

Total outstanding in middle of month (1th-17th).

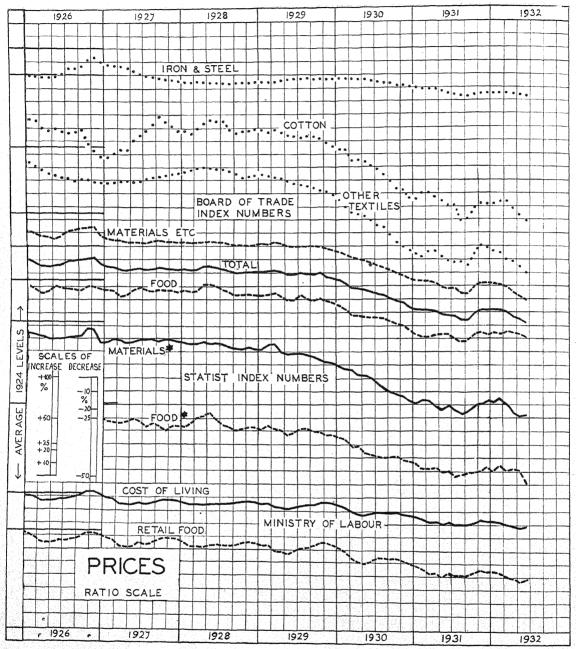
Average of Bank Rate, Bankers' Deposit Rate, 3 Montas' Bill Rate and day-to-day rate for week ending 15th of month, expressed as percentage of 1924 average.

Day-to-Day Rate and 3 Months' Rate. Averages for week ending 15th of month.

For Table of Exchanges see p. 22.

** From 1929 first figure Bankers, second figure Others

Issues amalgamated Nov. 22, 1928.



Scale applicable to all lines.

¥ NORMAL SEASONAL CHANGE REMOVED.

PRICES AND WAGES.

U.S.A. PRICES.

				WHOLESA	LE.				RETA	IL.	WAGES.	4)	U OF L	
	Bar Silver	Board o	f Trade Ind		Statis	(Sauerbe	ck) Index 1	Nos.	M, of L	abour.	New Index	esale ex eral	ex od)	t offing
	(Cash).	General.	Food.	Materials. etc.	F000		Raw Materials.	Total.	Cost of Living.	Food.	of Average Weekly Wages	Wholesale Index General	Retail Index (Food)	Cost off Living All items
1924	34.0	100	100	100	100	*	100	100	100	100	% 100*	100	% 100	% 100
Average.		200				^		100	100	100	100	100	100	200
1926 1st Qr. Av 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	31·0 30·2 29·1 25·2	88·6 87·2 90·2 90·4	92·8 93·1 92·5 93·9	86·3 84·1 89·0 88·5	91 92 93 90	90 91 93 92	92 89 90 94	92 90 91 92	98 96 98 101	96 94 95 99	100·5 100·5 100 100·5	104 102 101 100	111 110 107 111	102* 103‡
1927 1st Qr. Av 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	25·3 26·1 25·5 26·4	85·6 84·8 85·1 84·8	90·8 91·6 91·8 91·3	82·9 81·2 81·6 81·5	89 91 87 85	89 90 87 86	88 87 88 89	89 89 88 87	97 94 94 97	94 91 93 96	101 101 101 100·5	97.5 96 97 98	108 107 105 107	101*
1928 1st Qr. Av 2nd ,, ,, 3rd ,, ,,	26·3 27·0 27·0 26·6	84·6 86·1 83·8 83·1	91·5 95·3 90·4 89·2	81·1 81·4 80·5 79·9	89 94 86 85	89 93 86 86	86 87 84 84	88 89 85 85	94 94 94 95	92 91 92 93	100 100 99·5 99·5	98 99 100 98	104.5 105 106 108	99:1
1929 JAN FEB MAR APR MAY JUNE	26·4 25·8 26·0 25·9 25·3 24·3	83·2 83·3 84·4 83·4 81·7 81·6	88·7 89·4 90·3 88·5 86·3 86·2	80·3 80·0 81·2 80·7 79·3 79·1	85 87 86 86 82·5 83·5	85 87 85 85 81.5 82.5	84 86 87 82 80 5 79 5	84 86 87 84 81	94 95 92·5 92 91·5 92	91·5 92 88 87·5 86 87·5	99·5 99·5 99·5 99·5 99·5	98 97 98 97 96 5	106 106 105 104 105 106	99
JULY AUG SEPT OCT NOV	24·2 24·2 23·8 23·0 22·6	82·7 81·8 81·7 81·9 80·6 79·7	89·4 86·8 85·8 87·2 85·6 84·6	79-2 79-1 79-5 79-1 78-0 77-1	86 84.5 83 82.5 80 81	85 85 84 83.5 81.5 82	80·5 80 79·5 78 76 76	83 82 81 80 78 78-5	93 93·5 94·5 95·5 95·5	90 90·5 91·5 93·5 93·5 92	99·5 99·5 99 99 99	98 98 98 97 95	109 110 110 110 109 5 108	100
1930 JAN FEB MAR APR MAY JUNE	19·2 19·5 19·2	78·8 76·9 74·9 74·4 73·3 72·6	83·4 81·0 77·7 77·6 76·5. 76·6	76·3 74·7 73·4 72·6 71·5 70·4	80·5 79 76 77 73 72·5	80·5 79 75·5 76 72 71·5	74 73 72 70 69 66:5	77 75 74 73 71 69	94 92 90 89 88 88·5	90.5 88 84 82 81 83	99 98·5 98·5 98·5 98·25 98·25	94 93 92 92 90·5 88·5	106.5 105 103 104 103 101	97
JULY AUG. SEPT OCT NOV DEC	16.0 16.3 16.8 16.7 16.7	71·7 70·9 69·5 68·0 67·4 65·5	76·4 75·9 74·4 72·9 72·5 69·8	69·2 68·2 67·0 65·4 64·7 63·3	72 69·5 70 70 68 67·5	71 ° 70 70·5 71 69 68	65 64 62.5 61.5 61	68 66 65 65 64 62-5	89·5 89·5 89·89·5 88·5 87·5	84·5 84·5 84 84·5 83 81	98·25 98·25 98·25 98·25 98·25 98·25	86 86 86 84 5 83 81	99 99 100 99 97 94	94
1931 JAN FEB MAR APR MAY JUNE	. 12·3 . 13·8 . 13·0 . 13·1	64·3 63·9 63·7 63·6 62·8 62·1	68·1 67·1 66·6 67·4 67·8 67·7	62·4 62·1 62·1 61·5 60·1 59·1	67:5 65:5 66 66:5 65	67.6 65 65 65.5 64 64	58 59 58·5 57 55 56	61.5 61.5 61.5 61 59 59.5	86 84 84 83	80 79 76 76 75 76	98·25 97·75 97·75 97 97 97 97	80 78·5 77·5 76 74·5 73·5	91 87 86 5 85 83 81	88
JULY AUG SEPT OCT NOV DEC	13·2 12·6 13·0 17·3 21·3	61.5 59.9 59.7 62.8 64.0 63.7	65·5 64·6 64·7 67·7 69·1 68·0	59·2 57·3 57·0 60·2 61·4 61·5	63 62 63 63 63 65 65	62 62·5 63·5 63·5 64·5	54 53 55 56·5 57·5 58·5	57·5 57 58 59 60 61·5	83 83 83 83.5 84.5	75 75 75 76·5 77·5	97 96·75 96·75 96·5 96·5 96·5	73.5 73.5 72.5 71.5 71.5 70	81.5 82 82 81.5 80 78.5	
1932 JAN FEB MAR APR MAY JUNE	19·9 19·4 18·1 16·7 17·1	63·4 63·4 63·0 61·6 60·6 59·0	69·0 68·7 69·5 69·2 68·8 67·1	61·0 60·7 59·7 57·8 56·5 55·0	64·5 67 65·5 66 65·5 59·5	64:5 66:5 64:5 65 64:5 59	58 5 59·5 57 54 52·5 52 ·5	61 62:5 60:5 59:5 57:6	82·5 81.5 81	77 76 74 73 72 73	96:25 95:75 95:75 95:75 95:75 95:75	68:5 67:5 67:5 67:65:5	72 72 71	
JULY	17.0										95.5			
	1			SONAL '	1 202				* h-	cember, I	004	+N	o rent res	triction

PRICE OF SILVER-

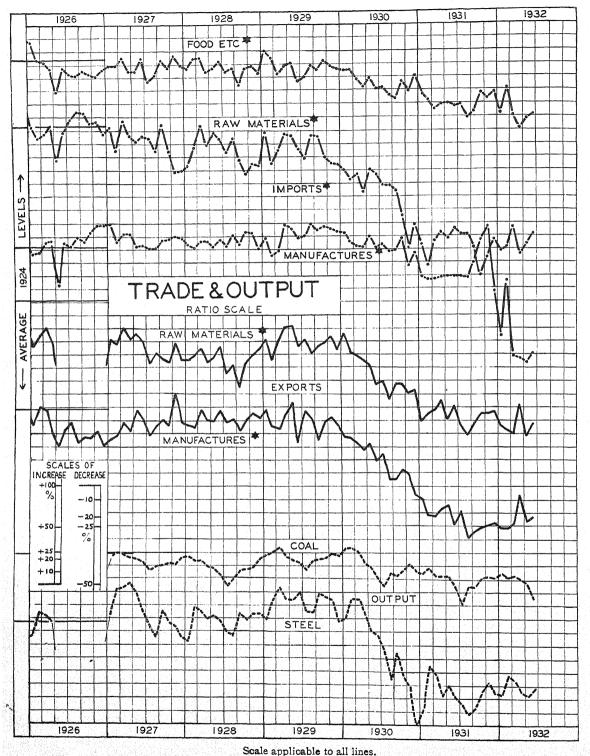
Average (cash) price of bar silver for week ending 15th of month,-ECONOMIST. BOARD OF TRADE INDEX.—Recometric Mean of Wholesale Prices (averages for month) of 150 commodities as percentage of 1924 average —ROARD OF TRADE JOURNAL

STATIST (SAUERBECK) INDICES-COST-OF-LIVING INDEX Average wholesale prices of 19 foodstuffs and 26 raw materials on last day of month, as percentage of average for 1924.—STATIST.

RETAIL FOOD PRICES-WAGES INDEX-

Ministry of Labour's index showing movement since 1924 in cost of maintaining unchanged the standard of living prevalent in working-class households before the war. For 1st of month, but placed against previous month—e.g., reading for March 1st is shown against February—to facilitate comparison with "Staffst" index. As above, for food only.

For description see Special Mem. No. 28.



* NORMAL SEASONAL CHANGE REMOVED.

TRADE AND OUTPUT.

		TOTAL IM	PORTS (Va	lues).				EXP	ORTS	OF U.	K, GOODS	(Values)		0	UTPUI	7	SHIP. B'LD'G
	Food, Drink and Tobacco.	Raw Materials.	Manu- factures.	(inclu Miscella	ding	Total. Net Imports.	Drin	od, k and acco.	Ra Mate	w rials.	Manu- factures.	To (inclu Miscella	ding	Coal.	Pig Iron.	Steel.	Tonnage Com- menced
	£Mn.	£Mn.	£Mn.	£Mn.		£Mn.	£Mr	l	£Mn.		£Mn.	£Mn.		Tons Mn.	Tons 000	Tons 000	Tons 000
1924 Average	47·6 ★	33·3 💥	25.0 ¥	106.4	₩	94·8	4.7	*	8.9	*	51·6 ★	66.8	¥	21.2	52 0	641	263
1926 1stQr.Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	46·1 49·1 40·8 42·3 43·8 43·0 46·2 42·9	35·0 \$1·8 28·4 \$0·6 30·5 \$6·1 37·0 33·5	25·6	107·1 93·7 101·0 112·5	106·4 97·4 106·0 106·1	94·8 83·9 92·4 101·6	4·2 3·6 4·3 4·6	5·1 4·2 3·9 4·0	6·7 3·8 2·0 3·2	6·9 4·0 2·0 3·2	50.9 50.2 40.9 43.1 45.0 43.7 42.5 42.3	63·2 49·5 52·6 52·0	63·5 52·5 50·8 61·1	21·5 —† —	499 207 13 38	665 245 56 161	193 168 68 152
1stQr.Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	43·1 46·0 43·4 44·9 43·9 43·1 49·6 46·1	34·7 <i>\$2·0</i> 28·6 <i>30·8</i> 25·1 <i>30·9</i> 28·9 <i>25·2</i>	28·7 28·1 26·5 26·4 25·5 25·7 26·9 27·2	107·0 98·8 95·0 105·9	106·5 102·5 100·1 99·3	96·5 87·2 86·1 95·8	4·1 3·8 4·5 5·0	4·9 4·5 4·0 4·3	6·7 6·7 5·9 6·2	6.8 6.8 5.9 6.0	44·8 44·1 45·6 48·0 47·1 45·7 50·6 50·4	56·8 57·3 58·7 63·5	57·1 60·4 56·8 62·4	21·1 20·3 19·3 20·0	524 631 558 527	782 799 648 629	580 437 370 377
1stQr.Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,.	44·0 46·5 43·2 44·7 42·9 43·1 47·3 43·9	32·1 29·1 28·3 30·5 23·0 28·1 28·3 24·9	26·7 2 5·9 26·2 2 6· 2 26·2 2 1· 4 26·9 2 7· 2	103·2 98·5 93·6 103·7	102·0 102·2 98·2 97·1	92·2 87·1 85·6 94·1	4·3 3·9 4·7 5·2	5·2 4.5 4·2 4·4	6·0 5·9 5·3 6·2	6·0 6·0 6·0	49·1 47·7 46·5 5 5·7 48·2 46·7 49·2 49·0	60.6 57.8 59.9 62.8	60:2 61:1 57:9 61:6	20·3 18·9 17·8 19·6	524 529 475 497	672 676 636 688	342 279 245 432
JAN FEB MAR APR MAY JUNE	40·0 47·0 42·1 42·9 42·6 44·9 44·2 45·9	39·1 3 1·9 27·0 25·7 28·5 28·1 30·9 31·5 29·2 31·1 24·5 28·3	26·8 27·1 23·1 23·9 27·2 24·7 30·2 29·7 29·2 28·9 26·4 27·1	116·5 90·9 98·6 104·1 103·4 91·5	110·5 97·3 96·5 106·5 106·8 96·7	106.7 80.5 88.6 93.8 93.0 81.9	4·2 4·0 3·8 5·0 4·6 3·9	5·0 5·1 4·4 6·0 5·2 4·4	6.6 5.6 6.6 6.8 7.8 6.1	6.7 5.8 6.6 7.3 7.4 6.4	53.8 51.7 44.3 45.9 47.0 45.2 47.1 50.2 53.4 54.7 38.4 41.1	66.9 55.7 58.6 60.2 67.4 49.9	65.7 58·6 57·4 64·8 68·9 53·5	21.0 21.5 22.2° 20.8 20.3° 19.9	509 520 533 571 591 614	673 775 841 773 773 812	} 362 } 428
JULY AUG SEPT OCT NOV DEC	45.7 45.1 45.1 43.9 51.2 46.8 48.5 45.0	22.9 26.5 24.7 31.1 24.2 30.9 27.3 26.8 30.0 25.7 31.2 25.5	27.4 27.5 29.5 30.0 28.4 28.6 30.2 29.5 28.2 29.0 27.8 28.6	93.6 101.0 98.4 110.3 108.2 106.4	96.6 107.3 104.1 104.7 101.2 98.9	85.6 92.0 91.6 101.1 100.0 98.6	4·7 4·5 4·8 5·4 5·7 4·9	4·4 4·1 4·3 4·4 4·9	6·9 6·0 6·5 7·1 6·9 6·2	6·7 6·1 6·4 6·5 6·8 6·2	53·2 51·1 50·8 48·8 42·2 41·7 50·3 47·7 48·6 49·0 44·6 46·2	66·5 63·0 55·1 64·6 63·1 58·4	63.9 60.7 53.9 60.3 62.1 60.0	18·9 20·3° 20·4 20·6 21·3 20·9*	607 616 620 622 589 581	708 705 811 783 763 661	} 360 } 499
1930 JAN FEB MAR APR MAY JUNE	40.0 40.8 36.7 38.7	30·1 24·6 24·0 22·9 24·1 23·8 20·7 21·0 23·1 24·6 20·4 23·6	28.0 28.2 25.8 26.6 28.1 25.6 25.6 25.3 27.7 27.4 24.5 25.1	101·8 88·2 93·4 83·9 91·0 83·4	97·3 94·4 91·4 85·9 9 3 ·7	93·7 79·6 85·8 76·1 82·0 75·6	4·6 3·7 4·0 3·6 3·8 3·2	5.5 4.7 4.4 4.3 3.6	6·9 5·8 6·0 5·4 5·8 4·7	7·0 6·1 6·0 5·8 5·6 4·9	44.7 42.9 41.2 42.6 42.5 40.9 36.7 39.1 39.8 40.8 33.8 36.2		57·5 54·6 53·0 50·5 52·3 45·8	22·1 22·1 21·5 19·9° 19·3 18·0°	587 607 601 578 555 526	679 776 773 696 621 600	} 427 } 230
JULY AUG SEPT OCT NOV DEC	37·2 36·7 36· 6 35·7 44·1 40·3 40·6 37·7	19·1 22·1 17·5 22·0 16·5 21·1 18·1 17·8 16·5 14·2 20·6 16·8	26.0 26.0 24.2 24.6 24.6 24.8 27.7 27.1 21.6 22.3 23.8 24.4	85·2 79·9 78·6 90·9 79·4 89·6	87.6 84.3 82.5 86.2 74.9 83.9	78·6 73·6 73·2 83·7 72·6 84·4	4·4 4·0 4·2 4·4 4·8 3·5	4·1 3·6 3·5 3·7 3·5	5·2 4·4 5·0 5·3 4·7 4·7	5·0 4·4 4·9 4·9 4·6 4·7	39.7 \$8.1 33.1 \$1.8 32.0 \$1.7 35.9 \$4.0 32.7 \$3.0 27.6 \$8.6	50·7 42·8 42·7 46·9 44·1 38·5	48.6 41.1 41.7 43.7 43.2 39.5	16·9 18·6° 18·2 18·7 19·8 18·7*	439 376 397 375 358 317	547 441 532 451 424 322	} 161 } 132
1931 JAN FEB MAR APR MAY JUNE	36·2 36·9 30·0 35.3 32·5 33·2 32·5 34·2 33·3 34·5 33·4 33·9	17.9 14.6 13.3 12.6 15.1 14.9 15.5 15.8 14.6 15.5 14.1 16.3	20·4 20·7 19·5 20·2 22·3 20·3 20·9 20·6 21·0 20·7 20·2 20·7	75·5 63·7 70·6 70·0 69·6 68.6	73·3 68·9 69·0 71·7 71·4 72·2	69· 5 57·8 65·2 63·4 63·9 62·6	3·7 2·8 3·0 2·9 2·8 2·6	46655589 3389	3.7 3.8 4.1 4.1 4.0 4.0	3·8 4·0 4·1 4·4 3·8 4·2	28.7 27.6 24.0 24.9 25.6 24.6 24.3 25.9 26.0 26.6 21.7 23.2	37.6 31.8 34.0 32.5 33.9 29.4	37·3 33·7 33·5 35·0 34·7 31·4	18·4 19·2 18·2 18·2° 18·2 16·9	305 320 323 302 313 302	361 486 458 397 425 393	} 33 } 23
JULY AUG SEPT OCT NOV DEC	40.8 37.3	13.6 15.7 12.5 15.7 11.2 14.3 11.9 11.7 15.3 13.2 18.5 15.1	20·7 20·7 20·1 20·5 22·6 22·8 27·2 26·6 28·7 29·5 18·2 18·7	70·1 65·3 68·3 80·7 83·2 77·0	71.7 68.5 70.7 76.5 79.2 71.9	65:2 61:4 64:6 75:4 78:3 71:5	2·7 2·6 2·7 3·4 3·4 2·9	2.5 2.4 2.3 2.7 2.6 2.9	3·8 3·4 3·7 4·3 4·1 4·0	3·7 3·4 3·7 4·0 4·1	26·5 25·4 22·0 21·1 22·2 22·0 24·0 22·7 22·9 23·1 22·7 23·5	29·8 32·8	32·9 28·0 29·2 30·6 31·2 31·2	14·9 16·9 16·8 17·9 18·1 17·9	286 249 232 257 277 299	377 349 367 411 439 407	} 39 } 105
1932 JAN., FEB MAR APR MAY JUNE	31.5 32.0 33.6 38.2 30.9 31.6 27.5 29.0 29.9 31.0 31.4 31.9	16.9 13.8 15.4 14.2 16.5 16.3 13.4 13.6 13.7 14.6 13.5 15.6	13.3 13.4 20.1 20.1 13.0 11.9 11.8 11.7 11.6 11.4 11.8 12.1	62·3 70·2 61·1 53·5 55·7 57·5	59·8 73·6 60·5 55·1 57·5 6 0·4	57·0 64·7 55·7 48·8 51·3 53·3	2·8 2·8 2·7 2·9 2·6 2·3	3.4 3.4 3.1 3.5 2.9 2.5	3.6 3.5 3.5 4.0 3.6 3.6	3.7 3.6 3.5 4.2 3.4 3.8	23·4 22·5 22·6 22·6 24·2 23·2 26.8 28·6 23·2 23·7 22·9 24·5	31·1 30·0 31·2 34·8 30·2 29·7	30·9 30·7 30·6 37·3 30·8 31·7	18·5 18·0 18·1° 17·7 17·3° 15·4	298 307 303 296 285 291	402 460 443 406 399 421	} 28

Declared values of imports (c.i.f.) into U.K., and exports (f.o.b.) of U.K. produce and manufacture. Net imports—Total imports less exports of imported goods.—MONTHLY ACCOUNTS OF TRADE & NAVIGATION.

Total for 4 weeks ending approximately at end of month—BOARD OF TRADE JOURNAL OUTLINES.

INGOTS & CASTINGS IRON AND STEEL MANUFACTURERS.

SHIPBUILDING—

Declared values of imports (c.i.f.) into U.K., and exports (f.o.b.) of U.K. produce and manufacture. Net imports—Exports—Monthly ACCOUNTS OF TRADE & NAVIGATION.

Total for 4 weeks ending approximately at end of month—BOARD OF TRADE & NAVIGATION.

TOTAL for 4 weeks ending approximately at end of month—BOARD OF TRADE & NAVIGATION.

TOTAL for 4 weeks ending approximately at end of month—BOARD OF TRADE & NAVIGATION.

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TOTAL for 4 weeks ending approximately at end of month—BOARD OF TRADE & NAVIGATION.

TOTAL for 4 weeks ending approximately at end of month—BOARD OF TRADE & NAVIGATION.

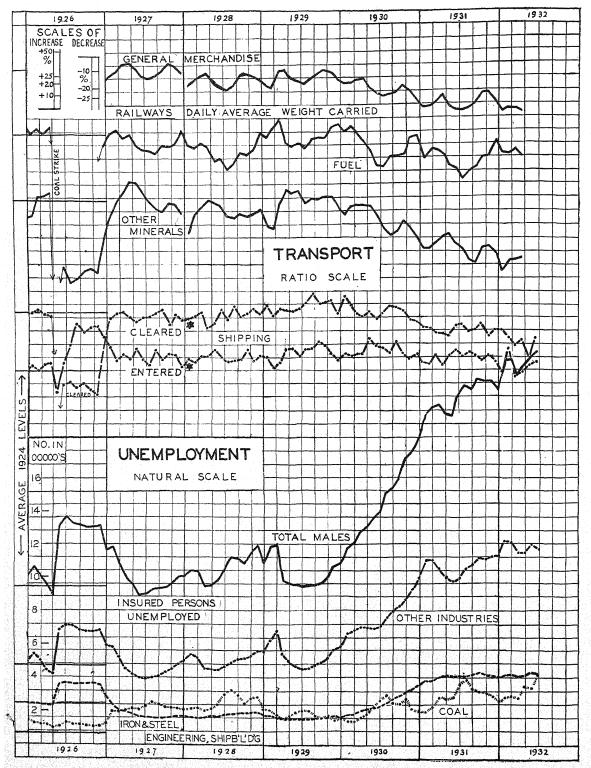
TOTAL for 4 weeks ending approximately at end of month—BOARD OF TRADE & NAVIGATION.

⁹ 4 Weeks, excluding holiday week.

* Excludes Christmas week, but includes New Year.

1

* NORMAL SEASONAL CHANGE REMOVED.



* NORMAL SEASONAL CHANGE REMOVED.

TRANSPORT.

UNEMPLOYMENT.

		SHIPPING	•			RAIL	WAYS				INSUI (G	RED Freat Br	ERSO itain a	NS UN	NEMPL th Irela	OYED.	ţ	
		of Ships	Inde	x of	Stena	Freight	Traffi uge Ra	o.				Ma	les.				Fem	ales.
	(with C Entered	Cleared Ports.	Time % Charter Rates.	% Freight Rates.	General.	Weight Finel	Other Minerals	Re- ceipts. All Goods	Total.	Coal.	Iron & Steel.	Engineering.	Shipbuilding.	Building and	Cotton and Wool.	§ Other Industries.	Total.	Cotton and Wool.
1924	461 *	544 *	100	100	544	000 ton 1743	s. 551	£Mn	000	000	000	000	000	000	000	744	000	000
Average	422 469	507 545	91	79	546	1778	544	8·89 9·10	941	72 119	52 50	116 97	78 88	99	35 31	344 348	263 243	62 49
1st Qr. Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	453 451 644 594 618 606	364 <i>363</i> 343 <i>330</i> 352 <i>354</i>	103 138	78 98 138	429 445 496	667 336 1056	376 331 365	5·81 5·64 7·92	1186 1314 1259	109 108 111	108 132 108	121 135 134	90 96 100	94 109 139	59 69 49	454 511 460	335 376 307	106 130 86
1927 1st Qr. Av 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	447 <i>515</i> 511 <i>509</i> 542 <i>500</i> 503 <i>496</i>	498 536 536 520 566 544 517 518	112 113 102 102	104 95 87 93	543 532 536 550	1754 1605 1595 1672	542 598 534 524	9·42 9·00 9·07 9·11	1032 913 929 990	201 220 243 217	41 39 41 49	97 75 67 69	73 54 48 46	134 82 92 147	29 24 29 31	356 296 295 303	236 175 194 196	46 39 48 49
1928 1st Qr. Av 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	449 494 514 512 531 489 516 509	502 530 535 519 564 542 545 546	93 90 93 113	84 83 86 96	521 496 501 530	1661 1478 1460 1630	506 536 505 516	8·95 8·34 8·37 9·84	1004 992 1108 1142	208 250 290 251	44 45 50 45	67 67 70 71	44 51 59 65	152 109 119 154	27 30 42 37	323 312 346 358	201 197 261 255	43 54 81 66
JAN FEB MAR APRIL MAY JUNE	467 505 391 469 457 488 516 537 538 538 536 508	541 574 462 535 552 559 551 558 601 554 575 563	113 109 108 108 108 108	96 95 89 88 86 81	522 448 515 532 525 484	1832 1711 1849 1613 1646 1566	492 424 519 584 596 562	9·13 8·26 9·27 8·95 8·94 8·39	1189 1197 980 960 956 942	212 170 147 175 198 203	43 42 36 37 37 37 39	76 72 64 64 65 61	56 52 50 46 46 46	206 252 141 116 104 100	37 38 34 39 37 38	388 393 350 332 325 315	277 257 224 222 221 221	63 60 56 63 69 72
JULY AUG SEPT OCT, NOV DEC	596 <i>534</i> 588 <i>539</i> 589 <i>562</i> 583 <i>549</i> 513 <i>521</i> 494 <i>497</i>	618 585 648 625 596 580 622 589 586 595 517 542	109 116 119 104 96 88	83 83 84 77 77 70	524 513 523 579 536 477	1682 1688 1660 1811 1845 1756	578 560 548 606 573 495	9·05 8·82 8·88 9·69 9·33 8·24	947 951 961 1005 1061 1075	202 173 162 165 153 156	41 40 39 41 47 45	61 66 68 68 70 70	47 49 51 51 49 48	103 108 121 143 172 181	40 41 36 36 40 42	314 331 335 339 356 359	231 247 243 249 265 269	78 78 69 69 69 73
1930 JAN FEB MAR APRIL MAY JUNE	480 519 4 27 513 484 517 498 518 579 579 581 551	581 616 496 574 533 542 525 532 598 551 534 523	83 84 84 86 86 66	66 64 61 66 58 62	527 468 512 484 501 436	1892 1743 1755 1563 1621 1318	537 503 540 506 465 485	9·13 8·41 8·92 8·19 8·65 7·27	1173 1209 1267 1301 1357 1396	138 142 155 177 235 254	48 47 55 64 63 63	79 85 91 98 100 107	49 50 55 55 58 62	197 195 177 160 147 147	56 63 67 71 85 91	411 425 456 465 461 469	348 374 427 460 499 515	104 121 135 151 185 202
JULY AUG. SEPT OCT NOV DEC	605 541 564 517 588 561 557 524 496 504 512 515	571 541 589 567 579 563 581 551 511 519 489 513	71 71 79 — 64	61 70 68 62 68 71	483 440 474 515 449 438	1480 1434 1529 1603 1640 1692	485 413 456 512 439 418	8·20 7·54 8·17 8·76 8·18 8 11	1519 1546 1605 1735 1771 1847	301 252 246 282 225 210	71 80 83 91 98 109	114 125 137 151 158 173	65 70 76 82 86 92	160 166 178 200 232 246	102 105 103 96 96 115	499 532 552 581 610 647	551 573 584 584 598 653	213 217 207 197 192 219
JAN. FEB. MAR. APRIL MAY.	451 487 401 481 478 510 459 478 511 511 558 580	469 497 423 490 466 473 465 471 504 464 507 497	64 	70 65 66 67 70 64	437 395 445 427 396 415	1533 1471 1571 1430 1324 1380	410 367 417 401 419 421	7·99 7·37 8·01 7·49 7·05 7·38	1972 2017 2028 1968 1957 2068	208 239 292 278 288 377	99 99 102 101 100 101	178 187 192 194 196 199	95 101 107 108 110 110	288 274 247 220 207 214	112 104 90 93 92 100	697 714 701 683 677 685	691 380 638 625 621 639	211 202 181 184 185 202
JULY AUG. SEPT. OCT NOV DEC.	564 505 568 521 535 510 522 491 498 507 486 489	536 507 502 483 503 489 538 509 460 467 460 483	58 55 55 77 71 71	62 63 62 73 74 72	395 440 479	1335 1271 1399 1531 1459 1609	421 350 366 415 394 372	7:42 6:87 7:63 8:06 7:53 7:64	2128 2118 2173 2168 2167 2132	387 328 316 302 283 257	97 102 105 95 97 96	202 203 210 205 200 197	111 114 113 115 117 117	235 245 264 302 328 342	107 110 114 81 72 69	705 722 738 726 721 713	679 695 707 625 568 538	213 219 222 161 132 121
JAN. FEB. MAR. APRIL MAY JUNE	423 457 465 540 413 441 435 452 477 477 513 486	454 481 410 458 428 434 446 451 426 392 465 455	51 51 51 71 71 —	62 65 69 69 66 58	384 366	1412† 1408 1383 1321	338 326	6·67† 6·90 6·64 6·44	2304 2300 2211 2270 2323 2358	288 294 281 344 337 424	100 101 100 101 107 100	206 206 201 204 211 207	117 116 114 113 115 114	384 381 349 332 326 327	73 71 66 71 96 89	762 755 732 743 774 749	551 509 449 457 499 485	124 112 99 109 149 142

† 4 Weeks only, after 1931.

! Excluding any disqualified for benefit by trade dispute.

* NORMAL SEASONAL CHANGE REMOVED.

§ Excludes Commerce, etc.

TRANSPORT:
SHIPPING—ENTERED
AND CLEARED SHIPPING FREIGHTS—
RAILWAY TRAFFIC—
WEIGHT RECEIPTS

UNEMPLOYMENT— INSURED PERSONS—

Tonnage of British and Foreign vessels entering and leaving British ports with cargoes during month.—BOARD OF TRADE MONTHLY ACCOUNTS OF TRADE & NAGIVATION.

Chamber of Shipping index numbers as published by "The Statist."—PREPARED BY DR. ISSERLIS.

Tonnage of goods carried on the Railways of Great Britain during the month, excluding free-hauled.

Monthly Receipts for goods traffic, excluding cost of collection and delivery till January, 1928, then excluding receipts for collection and delivery.—MINISTRY OF TRANSPORT.

Number of books lodged at Labour Exchange on or about 25th of month.

MINISTRY OF LABOUE GAZETTE.

FOREIGN EXCHANGES.

					ΑV	ERAGE (OF DAIL	Y RATES	•				
	Paris f. to £	Milan	Berlin M. to £	Amster- dam fl. to £	Prague kr. to £	Berne i. to £	Stock- holm kr. to £	NewYork \$ to £	Buenos Aires d. to \$	Rio de Janeiro d. per mil.	Bombay d.perrup.	Hong- kong d. per \$	Kobe d.peryen
Parity	124.21†	92-46	20.43	12·107	24.02	25.2215	18.159	4.866	47.58	27	18	_	24.58
1928 JAN FEB MAR APRIL MAY JUNE	124·02 124·02 124.01 124·01	92·17 92·07 92·37 92·55 92·65 92·76	20·461 20·431 20·412 20·412 20·399 20·417	For 191 12:086 12:109 12:124 12:110 . 12:098	164·5 164·5 164·64 164·71 164·72	RATES S 25-302 25-336 25-339 25-332 25-327 25-317	18:138 18:161 18:180 18:183 18:193 18:186	4:8758 4:8750 4:8801 4:8821 4:8817 4:8805	47.83 47.88 47.86 47.81 47.80 47.66	5·92 5·92 5·93 5·92 5·92 5·89	18·10 18·00 18·00 18·00 18·01 17·95	24 · 69 24 · 44 24 · 40 24 · 42 25 · 05 24 · 66	23·09 23·08 23·20 23·47 22·94 22·95
JULY SEPT OCT NOV DEC	124·18 124·23 124·18 124·14 124·11	92.81 92.74 92.74 92.61 92.57 92.66	20·384 20·364 20·356 20·363 20·354 20·360	12.098 12.084 12.101 12.097 12.096 12.082 12.078	164·67 164·13 163·76 163·65 163·63 163·64 163·72	25 · 255 25 · 211 25 · 200 25 · 200 25 · 190 25 · 178	18·161 18·134 18·130 18·138 18·143 18·132	4·8642 4·8538 4·8508 4·8498 4·8495 4·8525	47·43 47·41 47·34 47·34 47·47 47·36	5·90 5·91 5·91 5·92 5·91 5·89	17·91 17·95 18·06 18·06 18·07 18·062	24·54 24·50 24·36 24·55 24·59 24·51	22.65 22.29 22.69 22.88 22.96 22.75
JAN FEB MAR APRIL MAY JUNE	124·23 124·24 124·21 124·14 123·99	92.67 92.70 92.68 92.70 92.65 92.67	20·402 20·447 20·455 20·475 20·415 20·335	12:091 12:115 12:117 12:090 12:067 12:074	163.83 163.84 163.85 163.93 163.85 163.73	25·207 25·231 25·229 25·214 25·190 25·198	18·138 18·155 18·170 18·173 18·154 18·113	4·8503 4·8525 4·8529 4·8534 4·8510 4·8485	47·42 47·39 47·28 47·28 47·24 47·17	5·91 5·90 5·86 5·87 5·87 5·87	18:056 18:013 18:008 17:965 17:912 17:854	24 49 24 08 24 08 23 92 23 68 23 66	22:56 22:38 22:05 22:08 22:11 21:77
JULY AUG SEPT OCT NOV DEC	123·90 123·87 123·89 123·85	92·74 92·74 92·69 93·00 93·16 93·24	20·359 20·360 20·361 20·397 20·389 20·386	12:086 12:103 12:093 12:098 12:087 12:096	163.90 163.83 163.76 164.41 164.57 164.47	25·221 25·203 25·164 25·176 25·151 25·109	18:100 18:101 18:101 18:141 18:149 18:102	4·8511 4·8488 4·8479 4·8695 4·8777 4·8817	47·23 47·21 47·20 46·82 46·26 45·86	5·87 5·88 5.87 5·86 5·80 5·56	17.818 17.830 17.869 17.871 17.886 17.936	23·89 23·87 23·73 21·73 21·18 20·52	22·54 23·13 23·42 23·58 24·01 24·10
JAN. FEB. MAR. APRIL MAY JUNE	. 124·16 . 124·26 . 124·10 . 123·90 . 123·81	93.05 92.87 92.84 92.78 92.71 92.76	20·387 20·366 20·382 20·375 20·365 20·372	12·102 12·123 12·125 12·097 12·081 12·086	164.58 164.26 164.11 164.16 163.97 163.85	25·163 25·198 25·136 25·094 25·108 25·084	18·136 18·124 18·106 18·092 18·111 18·095	4·8695 4·8621 4·8632 4·8634 4·8599 4·8588	45·12 42·70 42·24 43·61 43·02 41·67	5·52 5·55 5·72 5·81 5·86 5·63	17:931 17:907 17:862 17:860 17:835 17:816	19·47 18·66 18·24 18·40 17·67 15·45	24·23 24·28 24·38 24·38 24·39 24·41
JULY AUG SEPT OCT NOV DEC	. 123·82 . 123·77 . 123·85 . 123·65	92.88 92.98 92.83 92.80 92.78 92.72	20·383 20·387 20·404 20·412 20·379 20·369	12:092 12:089 12:067 12:058 12:068 12:061	164.05 164.17 163.82 163.79 163.79 163.70	25·044 25·047 25·049 25·020 25·049 25·040	18:097 18:112 18:093 18:096 18:101 18:101	4.8652 4.8708 4.8614 4.8589 4.8566 4.8567	40.84 40.67 40.37 38.50 38.65 37.42	5·34 4·87 4·98 ‡ 4·85 4·73	17:821 17:790 17:788 17:818 17:789 17:779	15·41 15·88 15·90 15·81 15·55 13·91	24·39 24·37 24·41 24·51 24·53
1931 JAN FEB MAR APRIL MAY JUNE	. 123·94 . 123·13 . 124·28 . 124·34	92·74 92·81 92·74 92·82 92·91 92·94	20·418 20·438 20·406 20·408 20·434 20·496	12.066 12.103 12.119 12.106 12.103 12.088	163·90 164·08 163·95 164·06 164·11 164·18	25·075 25·181 25·246 25·235 25·219 25·081	18:136 18:147 18:142 18:148 18:143 18:148	4·8550 4·8565 4·8585 4·8600 4·8641 4·8650	34·48 35·63 38·60 37·77 34·87 34·70	4·45 4·24 3·87 3·62 3.33 3·71	17.782 17.781 17.849 17.845 17.856 17.777	12.06 11.26 12.08 11.99 11.82 11.77	24·48 24·41 24·41 24·41 24·41 24·39
JULY AUG SEPT OCT NOV DEC	123·90 115·64 98·68	92·86 92·87 88·02 75·37 72·14 65·96	20·969†† 20·573 19·361 16·702 15·717 14·261	12·057 12·046 11·34 9·62 9·26 8·35	163·97 163·96 132·72 130·7 125·2 113·4	24·995 24·922 21·74 19·83 19·09 17·30	18·146 18·158 17·51 16·81 17·98 18·01	4.8566 4.8573 4.542 3.886 3.719 3.372	34·61 31·96 32·08 32·03 37·70 40·89	3.58 3·16 3·16 3·49 3·96 4·29	17:811 17:769 17:765* 18:880 18:136 18:129	12·34 11·81 12·35 15·06 16·74 17·59	24·40 24·42 26·19 30·0 31·81 32·14
1932 JAN FEB MAR APRIL MAY Week ending	92·22 95·16 93·15	67·89 66·80 69·97 72·84 71·35	14 489 14 548 15 25 15 79 15 44	8·54 8·56 8·99 9·26 9·07	115·8 116·6 122·43 126·40 123·76	17:58 17:73 18:75 18:28 18:79	17:87 17:93 18:29 19:65 19:58	3·430 3·459 3·634 3·752 3·676	40°59 39°72 38°78 36°52 35°84	4·29 4·19 4·02 4·18 4·72	18·125 18·144 18·157 18·031 17·929	17:30 17:67 16:43 15:12 15:10	25·33 23·97 21·43 21·10 20·99
June 4	93·46 93·25 92·85- 91·97	71.82 71.64 71.35 70.87 70.57 69.83 69.56	15:58 15:51 15:44 15:21 15:14 15:03 14:95	9·10 9·08 9·05 8·95 8·91 8·83 8·81	124·12 123·82 123·19 122·06 121·42 120·40 119·92	18·83 18·80 18·72 18·57 18·46 18·30 18·25	19:48 19:51 19:54 19:50 19:50 19:51 19:49	3.691 3.678 3.653 3.615 3.597 3.567 3.567	34'43 * * * * * .* .*	4·87 4·96 5·01 5·00* 5·01* 5·03*	17:94 17:94 17:93 17:94 17:97 18:06 18:06	15·26 15·36 15·37 15·41 15·30 15·30 15·56	21·10 20·91 20·42 19·43 18·30 18·52 18·73

^{1 15 2215} before June 24th, 1928.

^{††} Excluding week ending July 18th, 20 513

[|] Zurich from November 12th, 1929.

[‡] Moratorium.

^{*} Quotations nominal.

UNITED STATES

For description of series see Bulletin, April 23rd, 1932, page 126.

	F.R. E	Banks	F.R.M	ember l	Banks	Bank l	Debits		IN	r. RA	TES		st'l	TRA	DE	PΕ	RODU	CTIO	N	6.5	_	1
	Discounts & Re-discounts	Acceptances & Securities	Demand Deposits	Loans & Discounts	Investments	New York City	Outside New York	Gold Move- ments	New York F.R. Bank	Call Loans	Prime Comm') Paper	New Securities	DowJones Ind's Shares Index	Exports of U.S. Produce	General Imports	Industrial Index	Automobiles	Pig-Iron	Steel Ingots	S U.S. steel Corp.	Building Con- tracts Awarded	Freight Car Loadings
	Mn		10	0 Mn. 8	3	10 M	n. \$	Mn. \$	%	%	0/	Mn. \$	%	Mn		%	000	0000	tons	tons	000 \$	0000
1929 1st Qr. Av. 2nd Qr. Av. 3rd Qr. Av. 4th Qr. Av. 1930	906 979 1036 880	2578 299 298 623	3 1331 1311 1323 1438	1636 1652 1715 1809	5 600 575 547 556	6 5214 4710 4953 5226	2692 2658 2803 2920	8 32·5 25·6 23·6 -#8·4	9 5·0 5·0 5·7 5·2	7·74 8·50 8·65 5·57	5.93	12 1060 1044 1150 612	282 285 324 243	14 466 393 400 459	15 374 388 355 346	16 120 125 122 108	17 484 591 472 206	18 345 376 368 320	19 463 505 477 365	20 422 433 388 431	#17 587 529 388	22 405 449 477 430
1st Qr. Av. 2nd Qr. Av. 3rd Qr. Av. 4th Qr. Av. 1931	384 243 210 252	783 740 761 824	1307 1357 1375 1391	1667 1692 1693 1649	561 593 636 674	3553 3791 2734 2742	2407 2447 2180 2217	39·8 34·4 - 12·2 31·4	2·5 2·5 2·5 2·03	4·22 3·25 2·20 2·08	4·57 3·70 3·05 2·93	755 970 456 374	242 242 211 167	370 310 288 293	298 281 222 220	107 105 91 84	333 399 217 149	297 312 248 190	406 387 297 232	451 413 371 369	366 514 349 280	376 398 399 358
JAN FEB MARCH APRIL MAY JUNE	253 216 176 155 163 188	853 705 727 773 743 731	1368 1361 1375 1366 1361 1369	1575 1546 1538 1499 1473 1469	684 718 755 790 781 779	2456 2095 2759 2682 2507 2589	2170 1708 1942 1962 1886 1941	34·4 16·1 25·6 49·5 49·6 63·8	2·0 2·0 2·0 2·0 1·5 1·5	1.57 1.50 1.55 1.52 1.45 1.50	2·76 2·62 2·55 2·38 2·20 2·02	649 222 699 590 426 402	154 165 166 148 130 126	246 221 231 210 199 183	183 175 210 186 180 174	82 87 89 90 89 83	172 220 276 337 317 251	171 171 203 202 199 164	246 250 299 272 251 208	413 397 400 390 362 348	228 235 370 337 306 332	349 284 294 299 374 299
JULY AUGUST SEPT OCT. NOV. DEC	169 222 280 613 695 774	753 847 995 1425 1287 1117	1347 1324 1323 1245 1220 1187	1449 1440 1419 1352 1335 1310	781 766 792 770 751 743	2101 1750 2007 2068 1446 1923	1844 1653 1663 1813 1461 1711	19·5 57·5 20·6 -337·7 89·4 56·9	1.5 1.5 3.5 3.5 3.5	1.50 1.50 1.50 2.10 2.50 2.63	2·02 1·96 2·00 2·98 3·75 3·75	271 126 312 45 129 119	130 127 108 93 95 74	177 161 177 201 190 181	175 167 170 169 150 153	80 78 77 75 73 68	218 187 141 80 69 122	146 128 117 117 110 98	189 172 155 159 159 130	340 317 314 312 293 274	286 233 251 242 151 137	293 375 291 381 262 228
JAN. FEB. MARCH APRIL MAY JUNE JULY	10/00/07/07	980 894 914 1066 1454	1145 1100 1094 1114 1110 1092	1286 1259 1221 1188 1163 1126	714 700 714 715 738 749	1768 1438 1616 1556 1291	1590 1287 1373 1437 1250	-75.0 -90.6 -26.7 -30.5 -195.5 -207.7	3·5 3·5 3·0 3·0 3·0 3·0 2·5	2·74 2·50 2·50 2·50 2·50 2·50	3·75 3·72 3·50 3·30 2·96 2·64	194 94 190 142 123	72 73 74 57 49 43 40	147 151 152 132 129	135 131 131 127 112 121	71 71 68 64 62	119 117 119 148 185	97 96 97 85 78 63	146 146 141 124 111 90	265 255 247 233 218	85 89 112 122 146 113	227 225 229 277 209

Latest figures are preliminary.

† 1st-16th.

For prices see page 17.

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ROYAL ECONOMIC SOCIETY

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MEMORANDUM No. 38

REPORT ON CURRENT ECONOMIC CONDITIONS

October, 1932

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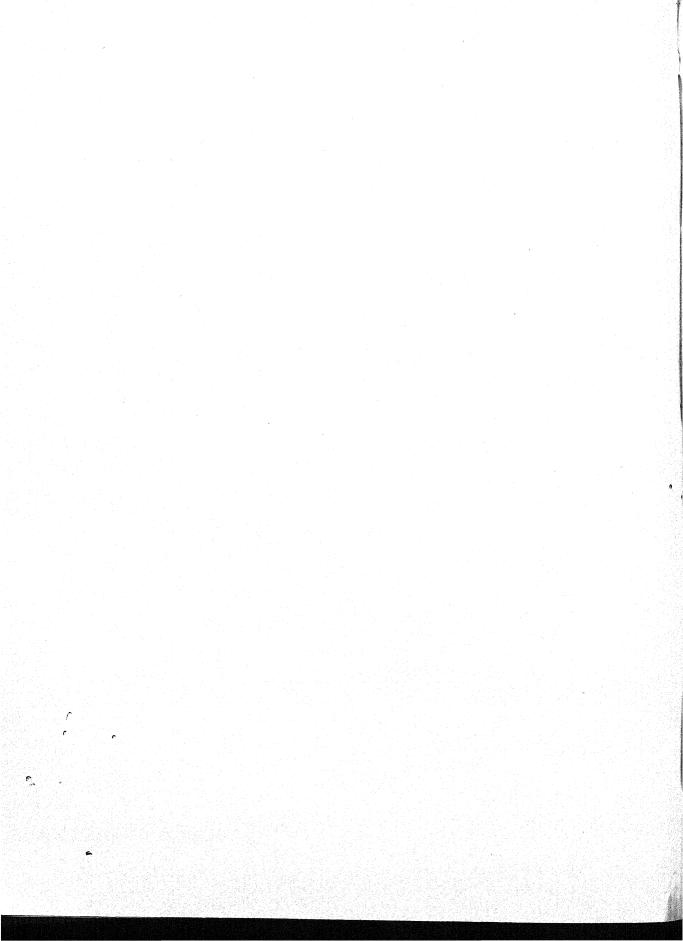
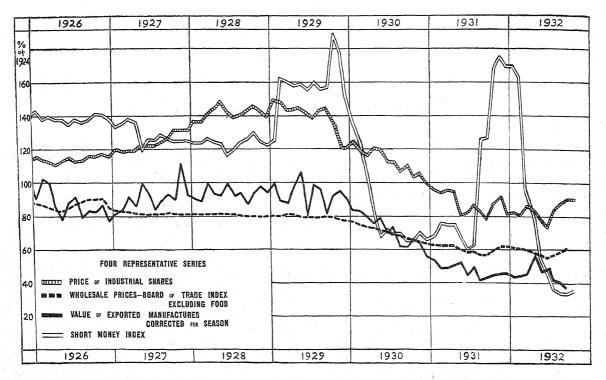


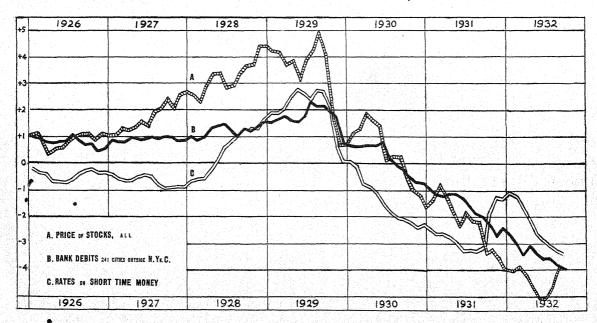
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INDEX CHART, U.K.



HARVARD INDEX CHART, U.S.A.



THE GENERAL BUSINESS POSITION.

UNITED KINGDOM.

October 20th, 1932.

The unfavourable statistics for August have been reflected in some falling off of exports in September. On the whole the figures for production and employment in September are a little better. It now seems probable that the general level of wholesale prices in the United States and in Great Britain will be maintained above the minimum of last June; the general movements during the past four weeks have been slight.

There is no improvement in sight for production for the home market or for export to most of the European countries. But more confidence is felt in the United States that progress will be made after the Presidential Election, and Australia, India, China and Argentina may soon be in a

position to increase their purchases. There is consequently some hope for increase in exports, especially if internal agreement in the cotton industry is reached. Since the amount of shipping tonnage laid up has slightly decreased and freight rates have risen, there is at least the possibility that the very low figure for shipbuilding of the last quarter may not be repeated.

In the region of finance we find the interaction of the very low discount rate, the increase of banking deposits and the rise in price of gilt-edged securities. The recent fall in the sterling-dollar exchange is sufficiently accounted for by seasonal movements, and by the higher rate of interest obtainable abroad than at home. Though money is so cheap, there does not appear to be a demand for it in home industry.

UNITED STATES. HARVARD FORECAST (By Cable)

October 17th, 1932.

In September the speculation curve of the index chart lost but a small portion of the gain above the low point of June, so that the curves of the index chart continue in a position for forecasting business improvement, the speculation curve having recovered after severe depression in business, and money being easy. This technical reading of the chart may be reversed if serious political or monetary disturbances occur, but otherwise events may be expected to confirm it.

A further moderate decline of the business curve occurred last month, but many special indicators of business volumes, such as railroad freight traffic, showed more than usual seasonal advance.

Monthly indexes of commodity prices were higher than in August, though weekly indexes declined in the last part of September.

Easing continues in the money market, despite the seasonal tendency towards firmness.

RECENT MOVEMENTS OF SUBSIDIARY SERIES.

UNITED KINGDOM.

INANCE.—The Index-number of Industrial Securities has been nearly steady since the end of August, and 20% higher than at the end of June. Fixed Interest Securities, whose prices had changed very little since the middle of July, appreciated in the first half of October.

The Short Money Index has been nearly stationary during the three months that have elapsed since the reduction of the Bank Rate to 2%.

Bankers' Advances have again fallen and stand at f.100 Mn. less than at the beginning of the year. The ratio of Advances to Deposits in September was only 43.2%.

Bank Town Clearings in September were nearly the same as in August, though a seasonal increase is normal. Country and Provincial Clearings were lower than in August, 1932, but the latter were higher than in August or September,

The virtual embargo on all new Capital Issues continued to the end of September.

Gold.—During September, the Bank of England added to its gold reserve against notes sums aggregating £514,000 at par, thus accounting for the greater part of the net imports for the month, which totalled £1,145,000 according to the official trade returns, or about £745,000 at par.

Of the gross imports, which totalled £12,124,000, £6,864,000 were derived from the Union of South Africa and f,3,427,000 from India, while of the export total of $f_{10,979,000}$, France took £7,779,000, U.S.A. £1,973,000, and Holland £904,000.

Prices and Wages. — Wholesale prices rose during July and August, were checked early in September and weakened a little in the first fortnight of October.

The salient figures are as follows:—

	7)	ST.	ERLIN	G Financial	DOLLAR
Approx. dates	Food	Not Food	All	Times	Irving Fisher's Index
June-	(Ba	ase: S	eptemb	er, 1931 = 10	0)
4th week	103.2	97.0	99.2	97.6	86.3
July— 4th week	100.5	99-0	99.5	99.3	88.3
August— 4th week	99-9	103.5	102.2	102.8	89.8
September- lst week 2nd ,, 3rd ,, 4th ,,	101·2 100·8 99·6 100·1	106·0 105·6 105·7 105·6	104·3 103·9 103·5 103·6	106·7 106·3 105·5 106·1	91·7 91·2 90·5 90·2
October— 1st week 2nd ,,		_	_	105·3 104·0	89·6 88·9

In four months the net rise in sterling prices is therefore greater than in dollar prices.

The increase from the average in August to the average in September was common to most groups of commodities (except miscellaneous food, especially sugar). The fall since the beginning of September is mainly attributable to reduced prices of cotton and jute.

Retail prices and the cost of living index rose slightly in September. The normal seasonal change is a slow increase from July to November.

Reduction of cotton weavers' rates, from 82½% above standard to 67% above standard, i.e., a decrease of 8½%, has brought the wage-index nearly down to 95.

TRADE AND OUTPUT.—The total value of imports was greater in September than in August. There was an increase in importation of food, other than cereals and meat, though the aggregate for the year so far still shows a marked falling off. The value of imported materials retained was practically the same as in August, 1932, and also in September, 1931.

Exports, especially of manufactured goods, fell off seriously in September. If we make a broad division between manufactures based on metals, textiles and apparel and others, we see that the fall was general.

EXPORTS OF BRITISH MANUFACTURES (Millions).

1931 | 1932

 Metal products...
 Aug. Sept. £8:1
 Aug. Sept. £7:1
 £6:5

 Textiles and Apparel...
 9:1
 8:7
 9:5
 8:6

 Others ...
 ...
 5:1
 5:4
 5:3
 4:8

 Total ...
 ...
 £22:0
 £22:2
 £21:7
 £19:7

Exports to the Irish Free State account for some of the fall. The average monthly export in the third quarter of last year was £2.5 Mn. It is not yet known how far this has been diminished.

There has been some improvement in output of coal and of iron, and a considerable increase in that of steel, though the output remains less than any month since September, 1931, except July and August for coal, and August for iron and steel.

For other and more general statistics

of production, see p. 12.

Shipping freights increased in September and were as high or higher than a year ago. The tonnage of shipping laid up in U.K. ports was slightly less on October 1st than on July 1st.

UNEMPLOYMENT. — Total unemployment was very slightly less on September 26th, than on August 22nd, but there have been some changes in detail.

In September the proportion of persons applying for insurance benefit to those applying for transitional benefit was about 55 to 45. This proportion has varied little since March. This indicates

that there has not been a serious relative increase in the number of the unemployed who have exhausted their claims to benefit.

INSURED PERSONS UNEMPLOYED. (000's). August 22nd, 1932 Sept. 26th, 1932 Wholly Tempor'ly Wholly Tempor'ly Males Coal Cotton 33 12 Wood 11 16 ii Building ... 226 237 Contracting, &c. 114 119 Distributive 162 170 Others 1119 271 1141 253 537 1954 483 1902 Females 62 Cotton 59 49 • • • • Wool 11 10 17 ... Distributive 57 Hotel, &c.: Service Others 164 102 163 90 194 326 162 All Totals :-Males Females August ... Sept. ... 508 ••• 2437 488

According to the provisional estimates of the Ministry of Labour the numbers of insured persons in employment have been:—

1932	000's.	1932	000's.
March 21st		July 25th	 9,317
April 25th	 9,484	Aug. 22nd	 9,280
May 25th	 9,402	Sept. 26th	 9,232
June 27th	9 394		

The last entry is reduced by some 85,000 owing to the dispute in the Cotton industry. The reduction from the average of the second quarter of the year to the third quarter is about 2%, which is smaller than that shown by the quarterly index of production, viz., 4%.

FINANCE, TRADE AND PRODUCTION IN THE UNITED KINGDOM IN THE THIRD QUARTER OF 1932.

THE statistics for the third quarter of 1932 show on the whole some falling off even from the low levels of the preceding quarter and a deeper depression than in the third quarter of 1931, but on neither comparison is the difference considerable.

Finance.—The relatively high figure for Town Bank Clearings is wholly due to activity on the Stock Exchange in July after the announcement of the War Loan Conversion Scheme. Country Clearings diminished. Provincial Clearings, however, showed some improvement.

Bankers' advances, which have been diminishing since the beginning of 1930,

have fallen rapidly in recent months. The low rates of discount in the money market have not been accompanied by equally low rates for advances, or at least available money has not been used.

The price of Industrial Securities advanced rapidly in July and less rapidly in August, since when they have been relatively stagnant. Fixed interest security prices after their jump early in July changed little till the end of September.

There were no new Capital Issues in

August or September.

PRICES.—Wholesale prices of materials rose in July and August, but early in September there was some re-

SUMMARY OF QUARTERLY STATISTICS.

	1929		19	30			19	31			1932	
TOTALS.	4th Qr.	lst Qr.	2nd Qr.	3rd Qr.	4th Qr.	lst Qr.	2nd Qr.	3rd Qr.	4th Qr.	lst Qr.	2nd Qr.	3rd Qr.
BANK CLEARINGS: Town (ex Metropolitan) Country Provincial (11 Towns)	£ Mn. 10165 790 399	£ Mn. 10 292 771 385	£ Mn. 9782 742 333	£ Mn. 9529 720 311	£ Mn. 9180 730 319	£ Mn. 9079 717 319	£ Mn. 8745 677 287	£ Mn. 7932 664 285	£ Mn. 6060 694 308	£ Mn. 6493 689 318	£ Mn. 6971 665 298	£ Mn. 7256 638 312
CLEARING BANKS Deposits* Advances* NEW CAPITAL ISSUES in Gt.	1763 971	1721 973	1747 962	1775 938	1810 920	1781 913	1714 917	1711 897	1686 890	1646 889	1677 854	1801 805
Britain: All For United Kingdom	29·7 17·8	69·5 36·3	72·4 37·4	28·0 19 0	66·3 34·7	45·4 21·2	25·5 6·7	8·2 5·2	9·6 9·5	27·0 20·5	47·8 33·9	3·3 3·2
IMPORTS RETAINED:	139	114	108	107	123	93	94	96	113	91	85	85
Materials: Partly Manufactured Cotton Other Total Wholly Manufactured Goods	14 24 54 92 65 299	11 16 51 78 64 259	10 9 43 62 65 233	9 5 42 56 60 225	9 12 35 57 58 240	8 7 32 47 50 192	8 6 29 43 50 190	7 4 29 40 52 191	9 9 31 49 60 225	6 8 33 48 36 177	4 7 27 38 28 153	4 5 25 34 30 151
Total Retained Imports EXPORTS, BRITISH: Materials Manufactures—Cotton Other	1	19 30 98 164	16 22 88 141	15 19 86 136	15 16 80 129	12 15 63 103	12 13 58 96	11 14 57 93	12 14 56 97	11 17 54 92	11 17 56 95	10 15 49 84
Total British Exports EXCESS OF IMPORTS: Goods and Bullion	125	106	94	87	106	82	114	65	115†	81†	791	741
TONNAGE OF SHIPS (with			0000	Tons		gg-constant	0000	Tons		and the second	0000 Ton	s
Entered from abroad Cleared for abroad	1 3007	1392 1610	1659 1656	1756 1738	1565 1581	1329 1358	1528 1477	1667 1541	1505 1458	1300 1292	1424 1336	1507 1408
PRODUCTION: Coal (13 weeks) Pig-iron (3 months) Steel , , , Shipbuilding (commenced)	196 237	7014 192 237 427	5911 180 199	Tons 5634 133 165 Tons 161	6164 115 128	5948 101 139 33	5479 99 126	Tons 5111 84 119 Tons 39	5801 91 134	5750 99 137	0000 Ton 5304 94 131 000 Tons 28	4666 81 123
INDEX OF PRODUCTION: Bulletin Board of Trade ,,	1	109·6 111·0	100.9	90·7 99·5	92·7 99 0	85·1 95·0	80·6 92·1	81·1 89·3	90·5 97·1	92·3 95·1	83·9 94·1	800

^{*} Mean weekly averages.

Including sovereigns at their face value.

INDEX NUMBERS.	Date in	1929		19	30			193	1			1932	
Percentage of 1924 level.	Quarter	4th Qr.	lst Qr.	2nd Qr.	3rd Qr.	4th Qr.	lst Qr.	2nd Qr.	3rd Qr.	4th Qr.	lst Qr.	2nd Qr.	3rd Qr.
PRICES OF COMMODITIES— General—Board of Trade Statist	Last month	79·7	74·9	72·6	69·5	65·5	63·7	62·1	59-7	63·7	63·0	58·9	61·4
	Last day	78·5	74	69	65	62·5	61·5	59·5	58	61·5	60·5	55·5	58
Materials—Board of Trade Statist	Last month	77·1	73 4	70·4	67·0	63·3	62·1	59·1	57·0	61·5	59·7	55·0	59·7
	Last day	76	72	66·5	62·5	59	58·5	56	55	58·5	57	52·5	56·5
Food-Board of Trade	Last month	84·6	77·7	76·6	74·4	69·8	66·8	68 ·1	64·9	67·8	69·5	66 8	64·6
	Last day	81	76	72·5	70	67·5	66	65	63	65·5	65·5	59·5	59·5
Retail—Food	Last day	92	84	83	84	81	76	76	75	77	74	73 5	73·5
Cost of Living		95	90	88·5	89	87·5	84	84	83	84	82·5	81·5	81 5
• Wage Rates	Fortnight after end	99	98.5	984	98‡	98‡	97	97	96 <u>1</u>	96‡	95≩	95¾	95
PRICES OF SECURITIES— Industrials Fixed interest	,, ,,	124	120	112	103	96	94	86	87	82	83	83	90
	,, ,,	95·5	10 0 -3	99·7	101·3	103·5	100:2	101·5	92:6	93·4	104	122	127
SHORT MONEY	" "	136	82	69	65	68	75	62	168	169	79	35	34
*		1									l		

action. The net increase in the quarter was, by the *Statist* reckoning, 8%. The result is that sterling prices are slightly higher than before the withdrawal from the gold standard. Wholesale food prices, after falling in May and June, have shown little further movement. They are definitely lower in sterling than they were in the summer of 1931.

When materials and food are combined it is found that there has been a net rise of 4% during the quarter both

here and in the United States.

At the end of September the Financial Times shows an increase of 6% in sterling prices in the twelve months since the withdrawal from the gold standard, while Irving Fisher's Index gives a fall of 9% in dollar prices in the United States.

Retail Food Prices and the Cost of Living Index were at the same level on October 1st as on July 1st, though the normal seasonal movement is an increase of 3 and 2% respectively. During the twelve months the fall has been 2%, while the Board of Trade wholesale food prices showed no change.

The few changes in wages that have taken place in recent months have had little effect on the average of wage-rates, which is about 1½% lower than twelve

months ago.

TRADE AND OUTPUT.—Imports of food have been maintained at the same value as in the preceding quarter, but for the past six months the total value has been 10% lower than in 1931, while prices have not fallen to the same extent. In the summer these imports are normally low, and the deficit in stock, if it exists, may be made good in the coming quarter.

The value of imported materials was also lower than a year ago. A study of Table A (p. 8), will show that the movement has varied greatly from commodity to commodity. The change from the second to the third quarter has been chiefly seasonal, and on the whole perhaps

indicates an improvement.

There has been a slight upward reaction in the importation of manufactured goods, but their aggregate value is only half the amount in 1930.

When we turn to exports we find a serious reduction during the quarter. Table B (p. 8) shows that the reduction is greatest in the industries based on metals and in chemicals. Whereas in the second quarter the value of exported manufactures was greater (in sterling) than a year before, in the third quarter it was 10% lower. The detailed Table on p. 9 shows which countries have become worse purchasers of the principal goods; there is so much variation that it is not possible to summarise it. The fall has been accentuated by the tariffs in the Irish Free State.

The excess value of Imports over Exports (goods only) was £89 Mn., £98 Mn., and £67 Mn., in the third quarter of 1930, 1931 and 1932 respectively, and £58 Mn. in the second quarter of 1932.

The Index of Production has fallen nearly 5% in the quarter, though it is little lower than 1931. The Table relating to Iron and Steel (p. 10) shows a serious reduction in the output (in spite of reduced importation) and consumption of these metals. Tonnage of Shipbuilding commenced is almost negligible. Further details are given on pp. 11-12.

How far the statistics of employment show a similar movement is considered on p. 5.

Some interest attaches to the figures for the completed year since the withdrawal from the gold standard. The values in the following table are in sterling.

QUARTERLY AVERAGES FROM OCT.-SEPT.

	1929-30.	1930-1.	1931-2.
Bank Clearings—	£ Mn.	£ Mn.	£ Mn.
Town	9942	8734	6680
Country	756	697	672
Provincial	357	302	309
Bankers' Advances		912	869
Deposits	1752	1754	1702
Net Imports—			
Food	. 117	101	93
Materials	. 72	47	42
Manufactures		52	39
Total		203	176
Exports—Total	. 157	105	92
얼마 하나 하는데 이 그렇게 되었다. 그 나		% of 1924	
Production Index	. 104	85	87
Prices Index—			
Materials	. 72	61	59
Food	. 78	67	• 67
Total	. 74	63	62

TABLE A. NET IMPORTS OF RAW MATERIALS (EXCLUDING RUBBER) AND CERTAIN PARTLY MANUFACTURED GOODS. DECLARED VALUES. £ Mn.

	1924. Quarterly Average.	1929	Quarters.					Quart 2	1932. Quarters.				
		4	1	2	3	4	1_1_	<u>z</u>	3	4		2	8 _
Pig iron, etc Copper, tin, lead, zine Yarns Leather	1.8 5.4 1.8 2.9	1·4 5·8 2·1 4·8	1.6 5.0 1.8 3.0	1·2 4·6 1·5 2·9	1·2 3·9 1·3 2·8	1·3 3·4 1·6 3·1	1.0 3.1 1.3 2.3	·9 3·4 1·2 2·5	-9 2·6 1·1 2·4	1·4 2·8 1·6 3·5	.8 2.7 .5 2.4	1:9 :2 1:4	2·3 ·2 1·2
Minerals (non-metals) Iron Ore Other Metals Wood Oil Seeds, &c Hides Paper Materials Silk	1·3 2·1 3·7 12·6 12·1 2·0 2·9	1.4 1.8 3.9 13.9 9.8 2.5 3.7	1:3 1:7 3:7 6:9 9:1 2:7 2:9	1·4 1·6 3·6 9·0 9·2 ·8 3·2 ·3	1·2 1·0 2·5 15·4 7·3 1·9 3·0 ·2	1:0 :9 2:3 11:0 6:8 :9 3:0	1.0 .7 1.8 4.2 6.6 .9 2.3	.9 .7 2.0 5.4 6.9 .0 2.0	.9 .5 1.5 11.2 5.3 1.2 2.6 .3	9 5 1.7 8.0 5.3 1.2 3.0	1:0 :6 1:7 3:9 6:7 2:4 2:8	.7 .5 1.7 6.1 5.4 .8 2.0	·8 ·4 1·1 8·7 4·8 1·3 2·2
Other Textiles (except Cotton and Wool) Cotton Wool	3·4 27·5 10·9	4·0 23·6 6·1	4·0 16·3 12·5	2·3 8·7 7·3	1·1 4·6 4·0	1·4 12·0 4·6	1.8 7.3 8.8	1.6 5.5 8.0	·9 3·8 2·1	2·4 9·5 4·9	2·9 8·4 8·4	1:3 6:5 6:9	5·3 2·0
Total, both groups and miscellaneous	92.8	88.2	75.7	59.6	54.3	5 0 -0	45.5	42.9	39.5	49.1	47.8	36.6	33.7
Total. excl. cotton and wool	54.4	58.5	46.9	43.6	45.7	39.4	29.4	29.4	33-6	34.7	31.0	23· 2	26:4

TABLE B.

EXPORTED MANUFACTURES-DECLARED VALUES. & Mn.

	1924 Qrly. Av.	1929	1		930 rters. 3	4	1	19 Quar 2	31 ters. 3	4	1	1932 Juarters. 2	. 3
Coke Earthenware Iron & Steel Other Metals Cutlery Electrical Goods Machinery Wood Cotton Wool Silk Other Textiles Apparel Chemicals Oils Leather Paper Vehicles* Rubber†	3·2 18·59 2·2 2·7 11·58 49·80 17·59 6·95 6·95 6·75	1-2 3-7 17-6 4-6 2-5 3-8 14-3 -9 30-9 11-6 6-6 6-7 7-7-2 2-1 2-8 11-7 8	1.0 3.3 15.4 3.7 2.0 3.3 13.0 6.3 12.2 4.5 5.8 6.2 2.1 1.5 2.3 11.0 8	6 31 133 30 199 120 295 205 205 494 435 519 115 211	9 30 119 26 18 31 110 195 97 46 53 51 112 211	1.0 2.6 10.8 2.7 1.7 2.7 11.0 .5 16.2 7.8 .4 4.4 5.0 1.1 1.9 12.9	-8 2·0 8·0 2·0 1·3 2·3 8·8 1·4 15·2 7·4 3·5 3·8 4·3 1·8 1·6 8·3 5·5	*5 2.2 7.8 1.6 1.9 8.2 4.4 13.4 5.0 3.1 4.6 1.8 1.5 9.0 6	·7 2·1 6·9 1·7 1·6 7·3 3·1 4·1 6·8 3·1 3·8 3·9 1·6 7·5	·9 2·1 7·7 1·6 1·4 1·6 8·5 ·4 13·9 ·2 3·4 4·2 3·4 4·2 1·7 0·5	7 1.8 7.1 1.5 1.3 1.4 7.9 .3 16.7 6.6 .2 3.3 2.2 4.3 1.2 1.4 4.4 4.4 4.4	*5 2.0 7.1 1.7 1.4 8.2 16.6 5.3 3.4 3.0 4.8 1.7 7.7 7.0 5	77 1.88 6.55 1.33 6.62 1.52 2.2 3.09 4.0 1.33 6.53 9.55
Total, including Miscel laneous	154.77	143.6	128:4	110.3	104.8	96-3	78.4	72.0	70.7	69.5	70.2	72:8	63-9

^{*} Including rubber tyres after 1924.

[†] Excluding rubber tyres after 1924.

EXPORTS OF MANUFACTURES.

Value of chief articles exported in the Third Qrs. of 1931 and 1932 to the principal countries concerned.

				principal countries concerne	ea.			
-		3rd 1931	Qr. 1932	3rd G 1931 1	Qr. 1 93 2		3rd 193 1	Qr. 1932
- Interest		£0	000	£000	0		£0	00
-	POTTERY, ETC.	78	49	RAIL LOCOMOTIVES (Steam and other)		COTTON PIECE GOODS—continued		
200000000000000000000000000000000000000	U.S.A	10	22	Argentine 17 Rest of S. America 6		India & Cevlon	1624 115	2593 135
-	Argentine British S. Africa	90 53	29 4 4	British S. Africa	_ 5	Straits Settlements & Malay		
State	British India	7.	32 83	British India 252	1	States Australia New Zealand	99 1096	132 1294
and an orange of	Australia New Zealand	58	42	-	48	New Zealand	250 208	315 181
AMMONTAN	Canada Other Countries	162 240	157 211	382	53	Canada Other Countries	1221	1253
december	Older Commission	771	669	MACHINERY (Electrical). Europe 363	312	m. o. r. i. a	9421	
	To S. Ireland	82	70	S. America 82	40	To S. Ireland WOOL TOPS & WORSTED	180	181
and the same of				British India 123	67 227	YARN.	-70	
CONTRACTOR OF THE PERSON	PIG IRON & FERRO ALLOYS Belgium	26	7	Australia 29 Other Countries 338	27 161	(-armany	136 277	113 257
and the same	France	29 10	9 13		834	Japan	75 170	99 154
August	Italy U.S.A Other Countries	6 186	3	MACHINERY (Prime Movers,	700		764	932
and the last of th	Other Countries		89	not electrical).		To S. Ireland†	1422	1555
- Contraction		257		Russia 22 France 35	44 20		43	63
STATES SANS	PLATES & SHEETS (not			Spain 11	20 112	WOOL & WORSTED TISSUES Germany	295	192
-	coated).		3	British S. Africa	25 25	Netherlands Belgium	150 147	109 111
-	Japan Argentine British India		74 34	British India and Ceylon 107	105	France	213	134
-	Australia & New Zealand	50	52	Australia 22	10 24	Other European Countries	105 558	95 465
-	Other Countries	195	541	Other Countries 169	136	China Japan	376 227	404 231
- Contractors		456	704	561	521	Japan U.S.A Chile and Peru	152 45	111 12
CONTRACTOR OF THE PERSONS	· · · · · · · · · · · · · · · · · ·			TEXTILE MACHINERY	8	Reagil Henguey Argentine	453 210	357 145
AVAICOUTED IN	GALVANISED SHEETS. Dutch E. Indies	27	28	Germany 78	37 37	British S. Africa Australia	11	25
STATISTICS	Argentine, Uruguay	30	5 35	France 93	45	Canada	70 329	80 229
Chapterio	British S. Africa British India	99 138	57 80	Rest of Europe 255	215 126	Other Countries	782	796
-	Australia	2 38	1 51	Japan 41	98 20	m a r 1	4123 124	3496 90
-	New Zealand Other Countries	393	338	S. America	85 434	To S. Ireland LINEN PIECE GOODS.		
A CONTRACTOR OF THE PERSON NAMED IN		739	595	Australia	54	U.S.A	270	186 5
- September	To S. Ireland	63	16	Other Countries	121	U.S.A Cuba Brazil and Argentine	35 97	55
-	SHEETS (Tinned, etc.) Norway	45	52	1280 1	1280	Australia and New Zealand Canada Other Countries	42	112 35
-	Norway	39	55 17	COTTON YARN.	150	Other Countries	222	167
-	Denmark	156	115	Germany and Poland 866	579	APPAREL.	673	560
-	Spain	32 63	14 47	Belgium 76	. 59	British S. Africa	384	232 4
	Italy	26 37	36 89	France 64 Switzerland 154	32 63	Australia New Zealand	113	85
	China (with Hong Kong)	87 109	143 51	Bulgaria 51	27 126	Canada Other Countries	70 606	43 491
1	Japan Brazil	62	47	U.S.A 52	42 42		1175	855
1	Argentine British India Straits Setts. and Malay	61 29	96 31	Argentine 36	52	To S. Ireland	344	210
1	Straits Setts, and Malay Australia	17 155	46 185	China and Hong Kong 154	180 64	BOOTS AND SHOES.	93	40
1	Canada Other Countries	172 462	164 420	Australia 75 Canada 43	132 54	British S. Africa New Zealand	65	47
1			1608	Other Countries 310	283	Other Countries	239	227
1		1583	1000	2530 2	2044	To S. Ireland	397 375	314 209
ı	COPPER MANUFACTURES Egypt British India	45	18	COTTON PIECE GOODS.	704	기존환하시겠습니다. 그리는 독표 시		
1	British India Australia	64	42 17	Germany 144	374 108	LEATHER. Germany	32 65	25 23
1	New Zealand	14 144	15 105	Netherlands 146	110 114	France	159	100
1	Other Countries			Turkey 99	98 350	Other Countries	241	250
١		273	197	Dutch E. Indies 221	224	Ma O Yusland	497 79	398 61
1	TIN (Blocks, etc.) Sweden	23	18	China (with Hong Kong) 300 U.S.A 127	364 . 95	To S. Ireland		
1	Germany	5 43	4 55	Peru & Chile 100 Brazil 21	50 20	PAPER. Foreign Countries	107	
	U.S.A	149	250	Argentine, Uruguay 8/8	972 228	British India Australia and New Zealand	49	
	Canada	97	9 121		326	Other British Possessions	1	
		326	457	Egypt 347 British S., W. & E. Africa 942 Foreign W. & E. Africa 146	1177 280	•	575	595
	## # The state of	<u> </u>	l ——	+ V = = == v			1	4=

† Yarn only.

IRON AND STEEL STATISTICS FOR U.K. 000 tons.

		P	IG-IRC	N.†	general bases Welseled			CRUD	EXPORTS OF IRON & STEEL			
		Produc- tion	+ Im- ports	- Ex- ports	=Home Cons'mp- tion	% Imports to Home Consump- tion	Pro- duction	* Im- ports	Home Con- sumption	% Imports to Home Con- sumption	Semi- Finished	Finished
1913 1923 1924 1925 1926 1927 1928 1929	Qrly. aver'ge	2565 1860 1840 1559 610 1826 1653 1895	46 27 77 71 124 152 30 38	236 223 150 140 148 83 114 136	2375 1664 1756 1490 653 1895 1569 1797	1·9 1·6 4·4 4·8 1·9 8·0 1·8 2·1	1916 2122 2054 1849 890 2275 2131 2415	215 138 271 289 390 421 286 247	2131 2263 2324 2139 1280 2695 2417 2662	10 6·1 11·7 13·5 30·5 15·6 11·8 9·3	209 540 470 188 145 251 245 252	751 1153 1146 600 521 712 702 699
1930	1	1923	72	107	1888	3·8	2374	334	2708	12:3	225	647
	2	1797	68	84	1781	3·8	1988	245	2233	10:9	159	567
	3	1328	109	87	1350	8·1	1653	210	1863	11:3	150	506
	4	1149	62	39	1172	5·3	1284	300	1584	18:9	139	426
1931	1	1012	67	48	1031	6·5	1389	227	1616	14·0	99	331
	2	993	83	63	1014	8·2	1261	294	1555	18·9	98	355
	3	841	62	44	859	7·2	1186	302	1489	20·3	88	316
	4	911	93	47	958	9·7	1339	434	1773	24·5	106	374
1932	1	989	58	33	1014	5·7	1373	266	1639	16·2	99	339
	2	944	42	43	943	4·5	1309	212	1521	13·9	98	336
	3	812	28	19	821	3·4	1230	155	1385	11·2	129	286

[†] Inc. Ferrous Alloys.

STOCKS OF STAPLE COMMODITIES

Table supplementary to the summary table, p. 2, Special Mem. 32

Beg	inning of	(1) American Cotton. 1,000 bales	Copper. 1,000 tons.	(3) Tin.§ 1,000 tons.	1,000 U.S.		(5) Spelter 1,000 tons.	(6) Rubber. 1,000 tons.	(7) Sugar. 1,000 tons.	(8) Tea. Mn. lbs.	(9) Coffee. Mn. bags.	(10) Wheat. § Mn. bush.	Petrol- eum. Mn. barrels
1931	Jan	6,471	535	52.6	92.2	8.3	140	506	7,018	262	32.2	*	603
	April	7,000	510	60.0	116.5	13.5	140	547	8,453	242	31.1	554	591
	July	7,571 8,166 8,553 8,648	564 582 596 623 *	62:0 61:7 63:1 61:9 61:5 61:2	124·6 117·8 119·6 118·6 124·9 128·6	13·5 14·4 13·9 13·2 12·5 12·5	144 139 138 138 139 138	545 561 568 570 600 615	7,007 6,086 7,160 6,811 7,621 8,897	203 198 206 195 207 219	28·2 30·5 32·6 34·0 34·8 35·8	433 443 * * *	587 583 570 557 553 557
1932	Jan	8,713 8,713 8,744 9,115	* * * * *	61.7 61.4 61.0 61.5 61.7 61.9	135·2 143·1 148·1 151·0 151·2 155·2	13·1 13·3 13·8 14·7 14·1 13·9	138 137 136 138 140 140	644 651 644 646 646 644	8,577 8,247 8,641 9,091 8,738 8,387	260 248 240 213 171 182	36·9 36·9 36·7 36·9 35·8 33·0	* * 584 525 481 433	568 568 570 570 571 571
•	July August Sept Oct	10,975 11,104	* *	60·9 59·9 57·9 58·6	161·1 160·7 156·6	15.7 16.1 16.8 16.5	140 141 136 127	615 601 617	8,069 7,718 7,532	182 184 203 219	* * *	386	559 560 556

^{*}Notavailable. †Provisional. \$New series based on official estimates. ||Of this reduction, 18,000 tons is due to revision of estimate of Malay Stocks-

- (1) Total supply seasonally corrected, exclusive of European and Asiatic mill stocks.
- (2) Total supply outside hands of consumers less Japan Stocks.
- (3) London Metal Exchange Visible Supply plus "Tin" estimate of Straits Stocks.
- (4) U.S. and Mexico refined stocks to April, 1930. U.S. only since: U.K. stocks in official warehouses.
- (5) Visible supply in U.K. and U.S.

- (6) An estimate of World's stocks supplied by Rubber Growers' Association.
- (7) Total visible supply.
- (8) Tea Brokers' Association.
- (9) Visible supply in Brazil (Ports and Interior, including São Paulo Government stock), Europe and U.S.A.
- (10) Stanford Wheat Studies Estimate of World's Visible Supply.
- (11) Stocks of Crude and Refined Oils in U.S.

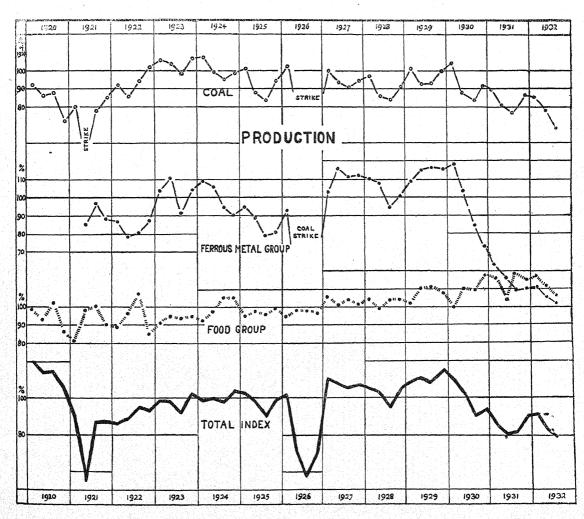
^{*} Blooms, Billets, Sheet and Tinplate Bars.

THE PHYSICAL VOLUME OF PRODUCTION.

THE Index Number of Production for the third quarter of 1932 is 80.0, a decline of 4 points from the figure of the second quarter, and a decline of 1 point from the corresponding figure of 1931. The gain noted last quarter on 1931 appears not to have been maintained.

It will be observed that Coal, Iron and Steel, and Food amongst the more important items show declines compared with the corresponding quarter of 1931, whereas increases are noticeable in Textiles, Chemicals and Paper.

QUARTERLY INDEX OF PRODUCTION.



QUARTERLY INDEX NUMBERS OF PRODUCTION. Average 1824-100.

	Final Index.		1183	98.8 99.9 97.9 103.8	102.6 98.2 90.1 99.1	102.2 72.0 57.3 69.7	110°8 108°1 105°9 107°4	105.7 103.7 95.4 105.2	108°3 111°0 108°2 114°8	109.6 100.9 90.7	86.1 80.6 81.1 90.5	92.3 83.9 80.0	
VII.	Paper.	000 tons 244·3	86	53.7 104.9 127.2 114.2	77.3 99.4 108.6 111.2	91.7 114.4 114.8 103.5	109·0 112·1 126·4 124·2	82.4 118.0 99.8 122.9	111.2 136.6 139.7 147.0	116.3 127.0 125.4 122.5	101.6 94.0 121.1 142.6	155.6 110.2 149.4	
	Group Index (incl. heavy Chemi- cals.)	Accessed the same of the same	62	95.4 103.0 101.0 101.2	107·6 94·4 82·4 87·4	90.0 79.5 72.6 84.4	107.0 92.6 92.8 97.9	104.8 103.8 93.3 102.7	100·1 102·1 103·4 105·4	94.5 88.8 97.7 84.2	83.9 82.5 73.9 86.5	89·2 96·1 95·0*	
VI	Oil Seed crush- ing.	000 tons 435·3	١	109.9 97.8 87.8 104.5	118·2 91·1 93·0 84·6	92.8 84.6 80.4 59.7	82.8 77.5 66.8 70.6	98.8 99.8 79.5 72.7	109·2 86·0 69·7 87·7	79.7 69.2 59.1 75.7	82.0 86.4 67.4 75.8	86·2 83·8 68·2	
	Group Index.		209	92.5 97.8 104.9 104.8	94.8 97.8 96.0 99.4	95.3 98.6 97.8 96.8	105.7 101.4 104.2 101.6	104·4 99·3 103·5 104·2	101.9 110.6 111.3 107.9	99.8 110.3 109.3 117.1	115·3 103·8 118·1 115·2	117·2 111·7 107·0	Under Construction
	Tobacco	000 lbs. 36,477	4%	95.6 99.7 101.9 102.7	96·3 105·2 110·2 108·5	102.5 112.7 104.8 112.8	107.2 110.0 118.7 121.9	116·9 124·3 127·7 133·6	123·3 139·1 141·1 142·1	138.3 136.7 138.0 145.4	142.9 122.5 132.8 128.4	121.3 133.8 125.0	nder Con
Δ	Cocoa.	cwts. 259,231	17.	109.6 89.6 88.7 112.1	109.9 113.3 99.2 112.1	119·3 114·4 87·6 113·9	144.3 82.4 102.8	121.4 103.7 102.5 101.0	115·3 116·7 103·4 108·3	99.9 121.7 96.5 121.6	151.2 95.9 118.6 59.5	168.0 106.2 102.8	‡ Uı
	Wheat and Flour.	000 cwts. 31,914	09	85.4 99.6 111.6 103.3	89.2 89.3 88.4 91.1	82:2 87:0 97:9 84:0	92.4 103.6 98.0 92.3	93.2 86.4 92.7 91.8	87.0 94.9 100.1 91.4	81.3 91.8 99.8 101.9	89.9 97.5 110.8 114.2	98.0 103.0 99.7	
	Group Index.		216	101.0 90.8 83.2 125.3	134.2 124.0 99.5 129.0	130.4 102.1 82.2 107.0	139.0 118.2 108.2 113.5	118.4 112.0 98.1 119.7	120·8 114·7 94·1 124·5	112.9 90.6 68.4 87.7	79.5 84.8 82.1 110.2	111.6 107.2 87.5*	. 1925.
IV.	Silk.†		10	74.6 94.3 111.5 119.5	112.2 152.0 81.9 79.3	92.7 96.5 86.3 105.0	108.2 101.8 96.9 147.6	151.1 136.6 140.8 158.0	147.3 142.2 162.8 175.0	159.0 125.0 127.2 140.7	142.0 139.7 145.7 177.9	199·1 215·4 203·8*	silk from 3rd Qr. 1925.
	Cotton.	bales 689	88	104.2 90.4 79.7 126.0	136.9 120.6 101.6 135.1	135.0 102.8 81.7 107.2	142.8 120.2 109.6 109.3	114.4 109.0 92.9 115.0	117.6 111.4 85.8 118.6	107.3 86.4 61.3 81.3	71.7 78.1 74.3 102.0	100·9 94·0 73·3	l silk fro
	Group Index.		25	96·6 90·4 111·6 101·2	100.0 102.6 111.2 110.3	117.6 103.8 114.4 119.2	125.9 123.5 118.7 119.8	117·5 122·9 106·9 112·1	111.5 120.5 117.7 114.7	111.8 117.2 114.3 119.4	92.4 121.9 101.0 110.6	105·9 95·5 92·0	Includes artificial
1111	Lead, Tin and Zinc.	tons 87,967	69	96·4 87·3 118·5 97·7	102.3 108.9 117.0 124.9	123·8 111·1 110·4 121·5	131.6 115.8 124.4 114.2	109.9 120.0 94.3 106.5	106·1 120·3 120·4 109·7	119-7 113-7 100-4 123-9	96·0 138·1 115·7 123·6	115·6 95·2 84·5	
	Copper.	tons 39,626	99	96.9 93.8 104.1 105.0	97·4 95·7 104·8 94·3	110.9 95.8 118.8 116.7	119.7 132.0 112.4 125.9	125.8 126.1 120.6 118.2	117.4 120.8 114.7 120.1	103·1 121·1 129·4 114·5	88.6 104.2 85.0 96.5	95.4 95.8 100.2	+
	Group Index.		341	109.0 106.2 94.6 90.6	95·1 89·2 79·4 81·1	92·8 49·4 25·1 32·7	103·4 116·0 111·3 112·0	110·1 107·7 94·9 100·8	109:1 114:8 116:4 115:9	118·1 104·1 85·2 72·9	63.2 55.8 49.1 50.1	50.9 46.2 42.3	ed.
	Railway Vehicles	tons 9,929	õ	142.7 112.9 78.3 66.1	167.9 150.0 111.9 98.5	188.6 149.1 94.0 82.6	67.0 155.7 196.3 244.6	199°3 265°1 154°2 126°2	139.9 131.6 152.8 149.9	149.0 180.8 151.2 189.8	104·9 75·7 76·2 22·5	31.3 18.4 9.2	Partly Estimat
11	Ship-Railway building Vehicles	000 tons 1,373	83	100.0 106.7 103.1 90.1	79.5 74.1 67.6 57.4	55.6 55.6 48.6 48.1	87.2 100.6 111.8 114.7	104.9 87.6 79.4 90.5	98.8 105.9 105.4 113.6	117.6 101.4 81.4 66.2	50.6 40.5 30.4 29.2	27·2 20·5 17·3	* Partly
	Steel.	000 tons 2,050	36	111.2 106.0 90.8 92.8	94.7 89.5 83.3 93.3	103·8 36·1 8·8 24·9	122:3 121:1 102:8 97:7	106·5 102·7 99·2 107·4	117.0 121.1 120.0 115.4	118.4 97.0 82.5 64.0	67.7 62:9 57:9 66:8	67.0 63.9 61.4	
r	Pig Iron.	000 tons 1,827	12	105·0 102·8 97·1 95·3	94.4 90.6 75.9 80.5	87.8 36.7 2.4 6.8	91.8 112:3 100:3 94:8	93·3 94·0 85·4 89·1	91.6 105.3 110.5 107.5	105·1 98·4 72·7 62·9	55.4 54.4 46.0 49.9	54·2 51·7 44·5	
-	Coal- mining.	000 tons 67,308	232	107.3 99.3 95.0 98.4	100.8 87.8 83.6 94.4	102:5 29:8 10:4 41:6	100.0 93.5 90.8 94.1	97·1 86·1 83·8 91·4	101.2 93.1 93.3 99.5	104-2 87-8 83-7 91-6	88:3 81:4 76:2 86:2	85·4 78·8 69·3	
l and	[Average quarterly production, 1924.	Weights.		чаю4	чакф	-1 01 to 4	H01024	MW4	1084	- 1020-4	 351	
Group	, Industry	Ave quar produ 19	Wei	Year. 1924	1925	986	1927	1928	1929	1930	1931	1932	

FOREIGN EXCHANGES.

					AVI	CRAGE (DE DAIL	Y RATES					
	Paris f. to £	Milan l. to £	Berlin M. to £	Amster- dam fl. to £	Prague kr. to £	Berne f. to £	Stock- holm kr. to £	NewYork \$ to £	Buenos Aires d. to \$	Rio de Janeiro d. per mil.	Bombay d. per rup.	Hong- kong d. per \$	Kobe d. per yen
arity	124-21†	92.46	20.43	12·107	24.02	25.2215	18.159	4.866	47.58	27	18		24.58
1928 AN EB IAR PRIL IAY UNE	124·02 124·02 124·01 124·01	92·17 92·07 92·37 92·55 92·65 92·76	20·461 20·431 20·412 20·412 20·399 20·417	For 1919 12:086 12:109 12:124 12:110 12:098 12:098	to 1927 164·5 164·5 164·64 164·71 164·72 164·67	RATES S 25·302 25·336 25·339 25·332 25·327 25·317	18:138 18:161 18:180 18:183 18:193 18:186	4.8758 4.8750 4.8801 4.8821 4.8817 4.8805	47·83 47·88 47·86 47·81 47·80 47·66	5·92 5·92 5·93 5·92 5·92 5·89	18·10 18·00 18·00 18·00 18·01 17·95	24·69 24·44 24·40 24·42 25·05 24·66	23·09 23·08 23·20 23·47 22·94 22·95
ULY UG EPT OCT OV	124·18 124·23 124·18 124·14 124·11	92·81 92·74 92·74 92·61 92·57 92·66	20·384 20·364 20·356 20·363 20·354 20·360	12:084 12:101 12:097 12:096 12:082 12:078	164·13 163·76 163·65 163·63 163·64 163·72	25·255 25·211 25·200 25·200 25·190 25·178	18·161 18·134 18·130 18·138 18·143 18·132	4·8498 4·8495	47:43 47:41 47:34 47:34 47:47 47:36	5·90 5·91 5·91 5·92 5·91 5·89	17:91 17:95 18:06 18:06 18:07 18:062	24·54 24·50 24·36 24·55 24·59 24·51	22·65 22·29 22·69 22·88 22·96 22·75
1929 IAN FEB MAR APRIL MAY UNE	124·23 124·24 124·21 124·14	92.67 92.70 92.68 92.70 92.65 92.67	20·402 20·447 20·455 20·475 20·415 20·335	12:091 12:115 12:117 12:090 12:067 12:074	163.83 163.84 163.85 163.93 163.85 163.73	25·207 25·231 25·229 25·214 25·190 25·198	18·154 18·113	4·8525 4·8529 4·8534 4·8510 4·8485	47.17	5·91 5·90 5·86 5·87 5·87 5·87	18.056 18.013 18.008 17.965 17.912 17.854	24·49 24·08 24·08 23·92 23·68 23·66	22.56 22.38 22.05 22.08 22.11 21.77
JULY AUG SEPT OCT NOV DEC	123·90 123·87 123·89 123·85	92·74 92·74 92·69 93·00 93·16 93·24	20·359 20·360 20·361 20·397 20·389 20·386	12.086 12.103 12.093 12.098 12.087 12.096	163·90 163·83 163·76 164·41 164·57 164·47	25·221 25·203 25·164 25·176 25·151 25·109	18·10 18·10 18·14 18·14	1 4·8488 1 4·8479 1 4·8695 9 4·8777	47·21 47·20 46·82 46·26	5·87 5·88 5.87 5·86 5·80 5·56	17:818 17:830 17:869 17:871 17:886 17:936	23.73 21.73 21.18	22:54 23:13 23:42 23:58 24:01 24:10
1930 JAN FEB MAR APRIL MAY JUNE	124·16 124·26 124·10 123·90	93·05 92·87 92·84 92·78 92·71 92·76	20·387 20·366 20·382 20·375 20·365 20·372	12·102 12·123 12·125 12·097 12·081 12·086	164·26 164·11 164·16 163·97	25·198 25·130 25·09 25·10	8 18·12 6 18·10 4 18·09 8 18·11	4 4.8623 6 4.8634 2 4.8634 1 4.859	42·70 42·24 43·61 43·02	5·52 5·55 5·72 5·81 5·86 5·63	17·931 17·907 17·862 17·838 17·816	18·66 18·24 18·40 17·67 15·45	24·38 24·38 24·39 24·41
JULY AUG SEPT OCT NOV DEC	123.66 123.82 123.77 123.85 123.65	92·88 92·98 92·83 92·80 92·78 92·72	20·383 20·387 20·404 20·412 20·379 20·369	12:092 12:089 12:067 12:058 12:068 12:068	164·17 163·82 163·79 163·79	7 25·04 2 25·04 9 25·02 9 25·04	7 18·13 9 18·09 0 18·09 9 18·10	12 4.870 93 4.861 96 4.858 91 4.856	8 40.67 4 40.37 9 38.50 6 38.65	5·34 4·87 4·98 1 4·85 4·73		0 15.88 8 15.90 8 15.81 9 15.58	24.37 24.41 24.51 24.51
JAN FEB MAR APRIL MAY JUNE	123·94 123·13 124·28 124·34	92:74 92:81 92:74 92:82 92:91 92:94	20·418 20·438 20·406 20·408 20·434 20·496	12.066 12.10 12.11 12.10 12.10 12.08	3 164·03 9 163·9 6 164·0 3 164·1	8 25·18 5 25·24 6 25·23 1 25.23	31 18·14 46 18·14 35 18·14 19 18.14	47 4·856 42 4·858 48 4·860 43 4·864	5 35.63 5 38.60 0 37.77 1 34.87	4·24 3·87 3·62 3.33	17:78 17:84 17:84 17:85 17:85	1 11·20 9 12·0 5 11·9 66 11.8 77 11·7	3 24·41 3 24·41 9 24·41 2 24·41 7 24·39
JULY AUG SEPT OCT	123·82 123·90 115·64 98·68 94·83	92·86 92·87 88·02 75·37 72·14		12:04 11:34 9:62 9:26	6 163·9 132·7 130·7 125·2	6 24.99 2 21.74 19.83 19.09	22 18·1 4 17·5 3 16·8 9 17·9	58 4·85 1 4·54 1 3·88 8 3·71	73 31.96 2 32.08 3 32.03 9 37.70	3·16 3·16 3·49 3·96	17.76 17.76 18.88 18.13	39 11·8 55* 12·3 30 15·0 36 16·7	1 24·42 5 26·19 6 30·0 4 31·81
JAN FEB MAR APRIL. MAY JUNE	92·22 95·16	66.80 69.97 72.84 71.35	14·548 15·25 15·79 15·44		116.6 122.4 126.4 123.7	3 17:7 3 18:7 0 18:2 6 18:7	3 17.9 5 18.2 8 19.6 9 19.5	3 3·45 9 3·63 5 3·75 8 3·67	9 39·75 4 38·75 2 36·55 6 35·86	2 4·19 8 4·09 2 4·19 4 4·7	9 18·1 2 18·1 8 18·0 2 17·9	44 17.6 57 16.4 31 15.1 29 15.1	37 23.9° 13 21.43 12 21.10 10 20.9° 35 20.0
JULY .				8·82 8·63						5·0 5·1			
Week end Sept. 3. ,, 10. ,, 17. ,, 24. Oct. 1. ,, 8.	ling 88.5 88.96 88.46	67-66 67-92 67-79 67-56 67-34 6 67-43	14·58 14·67 14·61 14·56 14·56 14·52 14·53	8.62 8.66 8.64 8.60 8.55 8.55	9 117° 6 117° 1 117° 0 116° 9 116°	73 18.0 56 18.0 08 17.9 53 17.9 50 17.9	05 19·4 03 19·1 08 19·1 02 19·4 00 19·4	18 3.48 50 3.47 50 3.46 48 3.46 69 3.45	4 40·3 9 40·3 7 40·5 4 40·5 4 40·5	* 5·1 * 5·1 * 5·2 * 5·2	9 18·1	19 16 16 16 16 16 16 16	52 16.3 18 16.4 11 16.6 10 16.1 13 16.1

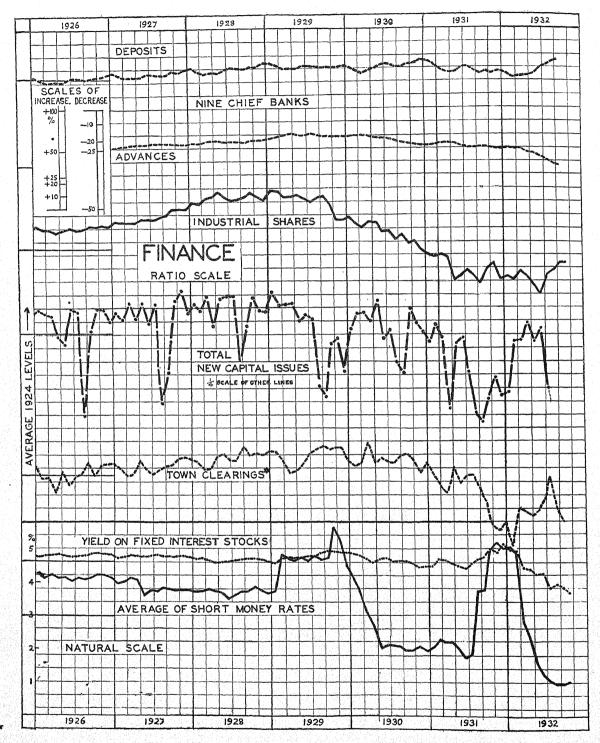
^{† 25°2215} before June 24th, 1928.

^{††} Excluding week ending July 18th, 20.513

[|] Zurich from November 12th, 1929.

[!] Moratorium.

^{*} Quotations nominal.



Scale applicable to all lines except the two lowest.

* NORMAL SEASONAL CHANGE REMOVED.

FINANCE.

	ST	ocks &	SHAR	ES	NE	w	BANI	CLE	ARIN		WIDD/Strong		OTI	ier b	ANKI	1G.			zj.	1	MONEY	٢.
	Indu	strials	Fix Inte		ISSU			n Ban ing Ho		Pro- vincial	Ban Emgl				9 Clea				BILLS	Index.	rate.	rate.
	New Index of Price	Sensitive Index Month-to-Month Variations	Index of Price	Index of Yield	for U.K.	for Abroad.	Tor	vn.	Country.	11 Towns.	Private Deposits.	Bank and Currency Notes. t	Deposits.	Discounts.	Advances.	Invest-	Ratio of Cash to Deposits.	Ratio of Advances to Devosits.	TREASURY	Short Money In	Day to day r	3 months' re
	%	ж ж %	%	%	£Mn.	£Mn,	£M	n	£Mn.	£Mn.	£Mn.		1	£Mn.		£Mn.	%	¥ %	£Mn.	Sho	%	%
1924 Average	100		100	100	7.4	11.2	2070	*	226	147	109	390	1632	242	791	324	11.7	48.5	601	100	2.43	3.45
1926 1st Qr. Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	114 113 114 116		96·8 97·0 96·2 95·5	103·3 103·1 103·9 104·7	14·7 8·1 8·5 15·7	11·3 9·8 6·2 10·2	2070 2100 1990 2150	1970 2040 2150 22 50	231 219 205 226	141 123 117 128	107 103 108 104	371 381 374 371	1610 1600 1634 1662	209 195 226 225	866 875 874 887	255 244 247 251	11·7 11·9 11·8 11·8	53·8 54·6 53·5 53·4	611 578 6 24 667	140 137 137 140	4·15 3·92 3·95 4·02	4·54 4·37 4·40 4·63
1927 1st Qr. Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	119 121 124 131		97:0 96:6 96:6 97:3	102·9 103·5 103·5 102·8	17.8 16.5 7.2 17.2	9·8 5·8 6·8 20·4	2228 2253 2040 2240	2117 2190 2200 2340	251 238 224 238	135 131 129 140	105 98 100 101	364 377 376 376	1660 1659 1672 1711	220 200 211 233	803 913 919 916	245 237 236 236	11.6 11.7 11.5 11.5	54·5 55·1 54·9 53·5	642 576 609 651	135 127 126 125	3·91 3·68 3·66 3·59	4·23 4·07 4·33 4·32
1928 1st Qr. Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	138 145 141 143		98.6 100.4 98.9 99.0		18·5 20·6 12·4 21·6	16·0 12·5 9·8 8·9	2320 2430 2240 2330	2210 2360 2420 2440	237 242 227 242	138 133 122 132	105 100 102 101	369 374 375 370	1706 1703 1738 1770	226 210 251 252	923 934 932 942	241 232 239 243	11·1 11·1 11·1 11·1	54·2 54·8 53·3 53·3	594 541 605 712	125 121 123 126	3·58 3·52 3·52 3·61	4·22 3·91 4·16 4·36
1929 1st Qr. Av. APR MAY JUNE	147 143 144 141	- 0·3 - 2·7	98·8 97·9 97·2 97·3	-101·2 102·3 102·9 103·5	23·0 28·8 12·3 14·0	15·1 6·0 8·8 11·4	2410 2210 2 250 2560	2300 2150 2250 2430	241 253 241 235		63**37 61+36 61+36 61+36	359 363	1775 1743 1732 1770	249 191 195 216	968 987 977 978	247 244 244 244	10·7 10·8 10·9 10·9	54·6 56·6 56·4 55·3	755 707 702 756	149 158 159 156	4·39 4·44 4·69 4·23	4·97 5·27 5·23 5·28
JULY AUG SEPT OCT NOV DEC	136 142 144 135 121 121	- 4·2 + 2·5 + 1·1 - 5·2 -11·3 + 0·5	96·0 94·2 93·5 93·9 94·1 94·5	106.3	7·5 6·3	8·3 1·4 1·2 4·0 6·6 1·2	2370 2250 2410 2440 2450 2170	2510 2560 2510 2530 2530 2530	248 226 224 248 242 248	129 112 114 123 123 127	63+36 65+36 63+36 70+37 55+42 58+36	371 362 360 358	1778 1759 1754 1765 1751 1773	234 225 222 227 231 227	985 980 971 971 970 971	242 242 242 241 235 236	10.7 10.9 10.7 10.6 11.3	55·4 55·7 55·4 55·0 55·4 54·8	757 776 772 787 792 805	160 156 157 189 177 151	4·73 4·13 4·21 5·27 5·38 4·64	5·33 5·47 5·49 6·22 5·66 4·80
1980 JAN FEB MAR APR MAY JUNE	124 119 116 120 119 112	+ 0·3 - 4·6 - 2·6 + 6·5 - 3·4 - 7·0	95·5 96·1 98·1 100·3 98·4 97·7	102·0 99·7	16·9 11·9 17·8	5·6 18·2 9·4 9·4 20·1 5·5	2340 2400 2770 2340 2360 2430	2240 2280 2630 2280 2360 2300	250 236 234 249 235 228	119 121 120 114 104	64+36 59+36 59+36 66+36 58+36 59+36	352 348 350 361 356	1767 1714 1682 1712 1742 1788	243 218 181 207 246 273	970 973 976 970 957 958	233 229 225 225 231 233	10.9 10.6 10.8 10.9 10.7 10.6	54·9 56·8 58·0 56·7 54·9 53·6	758 678 615 571 585 618	136 125 104 82 68 71	4·04 3·85 3·35 2·23 1·94 2·13	4·11 3·96 3·03 2·49 2·14 2·33
JULY AUG SEPT OCT NOV DEC	110 103	+ 0.6 - 7.2 + 6.0 - 9.9 + 2.8 - 5.8	99.7	96.3	3·5 2·4 12·8 11·5	3·3 3·1 2·6 17·7 8·4 5·4	2150 2100 2340 2220 2070 2150	2280 2400 2430 2300 2140 2290	233 224 207 230 226 226	100	70+36 66+36 65+36 66+36 60+33 64+33	367 358 357 355	1794 1767 1764 1791 1801 1839	284 279 284 296 310 320	952 936 927 924 920 915	241 250 255 257 265 269	10.7 10.6 10.6 10.5 10.5 11.1	53·1 53·0 52·6 51·6 51·1 49·7	633 648 649 656 672 706	69 69 65 65 70 66	1.88 1.96 1.69 1.65 2.04 1.52	2·37 2·29 2·09 2·11 2·23 2·30
1931 JAN FEB MAR APR MAY JUNE		- 4·0 - 3·5 + 2·7 - 3·0 -17·0 - 1·1	100.2	100.6 99.9 97.6	6.0 7.4 1.4 .9	4·5 13·6 6·0 ·3 10·1 8·4	1960 2270 1980	2110 1950 1860 2210 1980 2080	238 218 213 228 218 205	102 99 98 94 93 89	65+3 58+3 59+3 61+3 62+3 71+3	347 350 5354 4353	1836 1782 1726 1698 1700 1744	328 299 238 209 222 264	909 909 921 925 919 908	281 293 295 292 274 272	10.6 10.5 10.5 10.3 10.4 10.5	49.5 51.0 53.3 54.5 54.1 52.1	784 646 587 559 571 623	68 76 75 75 68 60	1.87 2.50 2.23 2.31 1.98 1.56	2·17 2·52 2·62 2·61 2·26 2·12
JULY AUG SEPT OCT NOV, DEC.	78 87 92		101·5 99·2 97·9 92·6 94·0	101·3 102·9 108·1 106·5	2·3 1·6 1·3 2·5 4·3	2.9	1980 1690 1680 1430	2090 1930 1740 1480 1430 1510	218 202 192 217 212 230	87 79 98 93	66+3 58+3 58+5 70+5 60+3 73+3	5 360 0 352 1 357 8 355	1750 1708 1675 1688 1670 1700	279 261 234 235 238 244	898 895 897 896 887	283 286 288 288 264 281	10·4 10·2 10·2 10·2	52·4 53·6 53·1 53·1	633 655 656 600 626 682	62 125 126 168 175 169	1.75 3.58 3.69 4.31 5.02 4.21	2·14 4·31 4·28 5·71 5·76 5·84
1932 JAN FEB MAR APR MAY JUNE	82 80 · 8 86 83 77	+ 0.5 - 2.2 + 7.2 - 6.0 -11.1	93·4 93·7 103·4 104·5	107:5 107:2 97:0 96:0 91:7	9·1 11·1 9·6 8·9	2·6 2·9 1·0 8·4 3·4 2·1	1330 1750 1700 1640 1640	1270 1660 1620 1590 1640 1800	230 208 214 216 215 197	96 98 102 95	69+3 70+3 73+3	355 345 354 354 358	1677 1621 1639 1643 1661 1727	237 205 215 238 245 276	891 888 888 866 858 838	268 264 266 272 284 324	10·5 10·4 10·4 10·6	54·8 54·2 52·7 51·7	653 574 576 612 617 628	_ 54	4·46 4·27 2·48 1·98 1·38 ·94	2:36
JULY AUG SEPT OCT	83 86 90 90	+16·1 + 7·9 + 8·9	121·7 120·2 121·5 126·8	82:7 83:9 82:7 79:0	3·2	-1 -	1950 1480 1470	2060 1690 1520	210 194 185	108 92 88	8 3+3	4 366 4 366 3 362	1765 1813 1826 From 19	316 373 390	822 803 789	333 348 367	10·6 10·4 10·4	46·5 44·2 43·2	750 791 854 872	35 35 32 34	·67 ·71 ·65 ·71	-98 -72 -69

STOCKS & SHARES— NEW CAPITAL ISSUES— BANK CLEARINGS—

† Exclusive of Investments in Affiliated Banks.

BANK OF ENGLAND—
PRINCIPAL BANKS—
TREASURY BILLS—
SHORT MONEY INDEX—

Index Nos. of Prices and Yield as percentage of 1924 level; on 15th of month.

Sensitive Index.—Geometric Mean of monthly percentage changes.
Issues during month in Gt. Britain (a), for U. K. (b), for Abroad, excluding Government loans, etc.—See MONTHIX REVIEW OF THE MIDLAND BANK, LTD.

Total of Town Clearings (i.e., excluding Metropolitan) of London Bankers' Clearing House for 3 weeks covering 2 Stock Exchange settlement days, Consols settlement day, and 4th of following month. Country Clearings of London Bankers' Clearing House and Provincial Clearings for 11 towns—proportionate totals for 24 working days Deposits, other than public, 11th-17th of month.

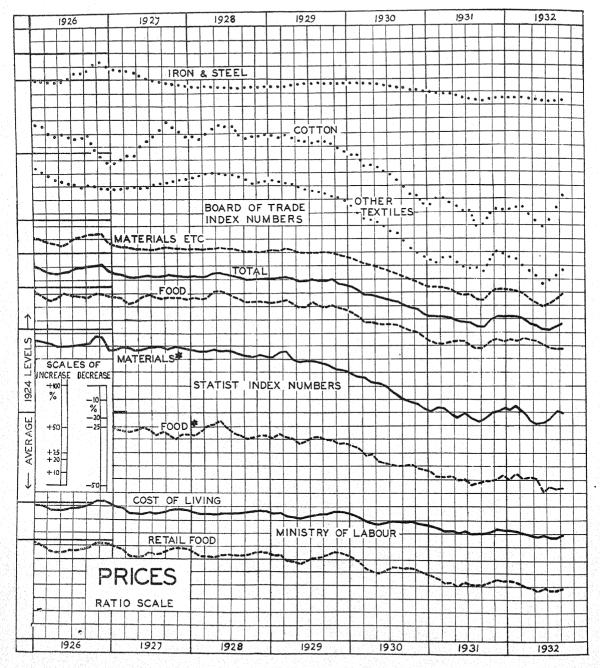
Bank Notes and Currency Notes in circulation 11th-17th of month. Issues amalgamated. November 22nd, 1928, "Gurrent, Deposit and other accounts." etc. Averages for the month of 9 clearing banks (i.e.—excluding the National Bank, Ltd.).—MONTHLY REVIEW OF THE MIDLAND BANK LtTD.

Total outstanding in middle of month (11th-17th).

Average of Bank Rate, Bankers' Deposit Rate, 3 Months' Bill Rate and day-to-day rate for week ending 15th of month, expressed as percentage of 1924 averages for week ending 15th of month, expressed as percentage of 1924 averages for week ending 15th of month.

For Table of Exchanges see p. 13.

Issues amalgamated Nov. 22, 1928.



Scale applicable to all lines.

¥ NORMAL SEASONAL CHANGE REMOVED.

PRICES AND WAGES.

U.S.A. PRICES.

				WHOLES.					RETA	AIL.	WAGES.	
	Bar Silver (Cash).	Board o	f Trade Inc Food.	Materials.	Statis Foo		eck) Index :	Nos.	M. of L. Cost of	abour. Food.	New Index of Average	
	d. per oz.	%	%	etc. %	%	%	Materials. %	Total.	Living. %	%	Weekly Wages. %	
1924 Average.	34.0	100	100	100	100	*	100	100	100	100	100*	
1926 1st Qr. Av 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	31·0 30·2 29·1 25·2	88·6 87·2 90·2 90·4	92·8 93·1 92·5 93·9	86·3 84·1 89·0 88·5	91 92 93 90	90 91 93 92	92 89 90 94	92 90 91 92	98 96 98 101	96 94 95 99	100·5 100·5 100 100·5	
1927 st Qr. Av and ,, ,, ord ,, ,,	25·3 26·1 25·5 26·4	85.6 84.8 85.1 84.8	90·8 91·6 91·8 91·3	82:9 81:2 81:6 81:5	89 91 87 85	89 90 87 86	88 87 88 89	89 89 88 87	97 94 94 97	94 91 93 96	101 101 101 100·5	AN GATTER AND
1928 st Qr. Av end ,, ,, ird ,, ,,	26·3 27·0 27·0 26·6	84·6 86·1 83·8 83·1	91·5 95·3 90·4 89·2	81·1 81·4 80·5 79·9	89 94 86 85	89 9 3 86 86	86 87 84 84	88 89 85 85	94 94 94 95	92 91 92 93	100 100 99·5 99·5	
1929 st Qr. Av APR IAY UNE	26·1 25·9 25·3 24·3	83·6 83·4 81·7 81·6	89·5 88·5 86·3 86·2	80·5 80·7 79·3 79·1	86 86 82·5 83·5	86 85 81•5 82•5	86 82 80*5 79*5	86 84 81 81	94 92 91·5 92	90·5 87·5 86 87·5	99·5 99·5 99·5 99·5	
ULY UG EPT OCT OEC	24·2 24·2 23·8 23·0 22·6 22·6	82·7 81·8 81·7 81·9 80·6 79·7	89·4 86·8 85·8 87·2 85·6 84·6	79·2 79·1 79·5 79·1 78·0 77·1	86 84·5 83 82·5 80 81	85 85 84 83·5 81·5 82	80·5 80 79·5 78 76 76	83 82 81 80 78 78·5	93 93·5 94·5 95·5 95·5 95	90 90·5 91·5 93·5 93·5 92	99·5 99·5 99 99 99 99	
1930 JAN FEB MAR APR MAY JUNE	20·2 19·2	78·8 76·9 74·9 74·4 73·3 72·6	83·4 81·0 77·7 77·6 76·5 76·6	76·3 74·7 73·4 72·6 71·5 70·4	80·5 79 76 77 73 72·5	80·5 79 75·5 76 72 71·5	74 73 72 70 69 66·5	77 75 74 73 71 69	94 92 90 89 88 88 5	90·5 88 84 82 81 83	99 98·5 98·5 98·5 98·25 98·25	STANDARD ENGINEERING CONTRACTOR
JULY AUG SEPT OCT NOV DEC	16·8 16·7 16·7	71.7 70.9 69.5 68.0 67.4 65.5	76·4 75·9 74·4 72· 9 72·5 69·8	69·2 68·2 67·0 65·4 64·7 63·3	72 69·5 70 70 68 67·5	71 70 70·5 71 69 68	65 64 62·5 61·5 61	68 66 65 65 64 62·5	89·5 89·5 89·5 89·5 88·5	84·5 84·5 84 84·5 83 81	98·25 98·25 98·25 98·25 98·25 98·25	
1931 JAN. FEB. MAR. APR. MAY	12·3 13·8 13·0 13·1	64·3 63·9 63·7 63·6 62·8 62·1	68·1 67·1 66·6 67·4 67·8 67·7	62·4 62·1 62·1 61·5 60·1 59·1	67·5 65·5 66 66·5 65	67.5 65 65 65.5 64 64	58 59 58-5 57 55 56	61.5 61.5 61.5 61 59 59.5	87 86 84 84 83 84	80 79 76 76 75 76	98·25 97·75 97·75 97 97 97	COMMUNICATION OF THE PROPERTY
JULY AUG SEPT OCT NOV DEC	13·2 12·6 13·0 17·3 21·3	61·5 59·9 59·7 62·8 64·0 63·7	65·5 64·6 64·7 67·7 69·1 68·0	59·2 57·3 57·0 60·2 61·4 61·5	63 62 63 63 63 63 65.5	62 62:5 63:5 63:5 64:5	54 53 55 56·5 57·5 58·5	57·5 57 58 59 60 61·5	83 83 83 83 5 84 5 84	75 75 75 76·5 77·5 77	97 96·75 96·75 96·5 96·5 96·5	AND
1932 JAN. FEB. MAR. APR. MAY JUNE	. 19·4 . 18·1 . 16·7 . 17·1	63·4 63·4 63·0 61·6 60·6 58·9	69·0 68·7 69·5 69·2 68·8 66·8	61:0 60:7 59:7 57:8 56:5 55:0	64·5 67 65·5 66 65·5 59·5	64:5 66:5 64:5 65 64:5 59	58:5 59:5 57 54 52:5 52:5	61 62:5 60:5 59:5 57:6 55:5	84 83·5 82·5 81.5 81	77 76 74 73 72 73·5	96·25 95·75 95·75 95·75 95·75 95·75	
JULYSEPTOCT	18·2 18·0	58·8 59·9 61·4	64·9 64·5 64·6	55*7 57*6 59*7	61 59·5 59·5	60°5 60 60	54 57 56·5	57 58 58	80·5 80·5 81·5	72 72 73·5	95·5 95·5 95·5 95	

Retail	Cost of
Index	Living
(Food)	Index*
%	% 100
111	102.5
110	102
107	101.5
111	102
108	100 5
107	100
105	99 5
107	100
104·5	98·5
105	98·5
106	99
108	98·5
106	98
104	97·5
105	97·5
106	98·5
109	99
110	99
110	99·5
110	99·5
109 5	98·5
108	97·5
106 5	97
105	96·5
103	96·5
104	95·5
103	95
101	93·5
99 99 100 99 97	93 94 93 5 92 5 91 89 5
91 87 86 5 85 83 81	88 87 5 87 85 5 84 5
81.5	84·5
82	84
82	83·5
81.5	82·5
80	82
78.5	80
75 72 72 72 71 69.5 68.5	79 78·5 77·5 76·5 76 76
69 69 69	75.5
	% 100 111 110 107 101 107 105 106 106 106 106 106 106 106 107 100 100 100 100 100 100 100 100 100

Conference Board.

PRICE OF SILVER-

Average (cash) price of bar silver for week ending 15th of month.-ECONOMIST. BOARD OF TRADE INDEX—Geometric Mean of Wholesale Prices (averages for month) of 150 commodities as percentage of 1924 average.

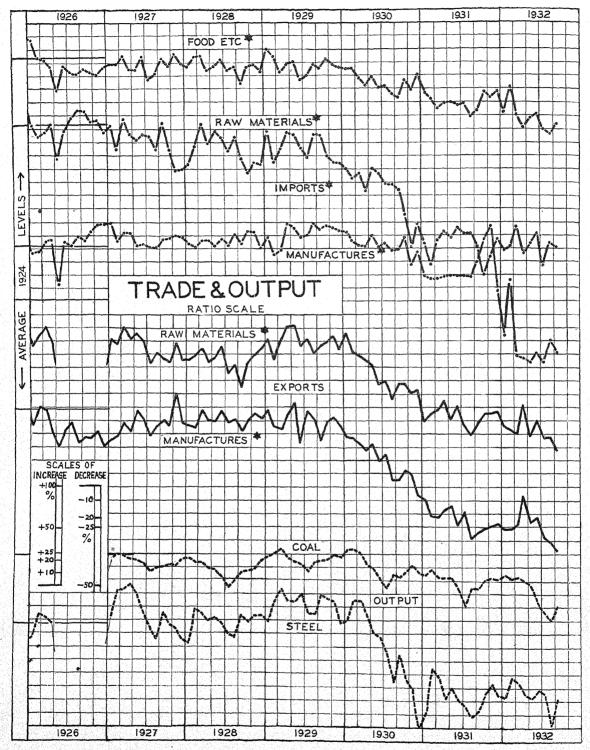
—BOARD OF TRADE JOURNAL.

STATIST (SAUERBECK) INDICES—

Average wholesale prices of 19 foodstuffs and 28 raw materials on last day of month, as percentage of average for 1924.—STATIST. COST OF LIVING INDEX— Ministry of Labour's index showing movement since 1924 in cost of maintaining unchanged the standard of living prevalent in working-class households before the war. For 1st of month, but placed against previous month—e.g., reading for March 1st is shown against February—to facilitate comparison with "Statist" index.

RETAIL FOOD PRICES-WAGES INDEX-

As above, for food only. For description see Special Mem. No. 28.



Scale applicable to all lines.

* NORMAL SEASONAL CHANGE REMOVED.

TRADE AND OUTPUT.

			TOTA	L IM	PORTS	(Val	ues).				EXP	RTS (OF U.	K, GO	ods	(Values).	Ţ	OT	JTPUT	·	SHIP . B'LD'G
	Foo Drink Toba	and	Ra		Ma: factu		(inclu	tal ding aneous)	Total. Net Imports.	Foo Drink Tobs	and	Ra Mater		Ma: factu		Tota (includ Miscella	ling	Coal.	Pig Iron.	Steel.	Tonnage Com-
	£Mn.		£Mn.		£Mn.		£Mn.		£Mn.	£Mn	į	£Mn.		£Mn.	100.	£Mn.	neodai	Tons Mn.	Tons	Tons	menced: Tons 000
1924 Average	47.6	*	33.3	*	25.0	¥	106.4	×	94.8	4.7	*	8.9	¥	51.6	*	66.8	*	21 2	520	641	263
1926 1stQr.Av 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	46·1 40·8 43·8 46·2	49·1 42·3 43·0 42·9	35·0 28·4 30·5 37·0	31·8 30·6 36·1 33·5	24·2 26·3	25·1 24·2 26·5 29·2	107·1 93·7 101·0 112·5	106·4 97·4 106·0 106·1	94·8· 83·9 92·4 101·6	4·2 3·6 4·3 4·6	5·1 4·2 3·9 4·0	6·7 3·8 2·0 3·2	6·9 4·0 2·0 3·2	50·9 40·9 45·0 42·5	50·2 43·1 43·7 42·3	63·2 49·5 52·6 52·0	63·5 52·5 50·8 51·1	21·5 —† —	499 207 13 38	665 245 56 161	193 168 68 152
1927 1stQr.Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	43·1 43·4 43·9 49·6	46·0 44·9 43·1 46·1	34·7 28·6 25·1 28·9		28·7 26·5 25·5 26·9	28·1 26·4 25·7 27·2	107·0 98·8 95·0 105·9	106·5 102·5 100·1 99·3	96·5 87·2 86·1 95·8	4·1 3·8 4·5 5·0	4·9 4·5 4·0 4·3	6.7 6.7 5.9 6.2	6·8 6·8 5·9 6·0	44·8 45·6 47·1 50·6	44°1 48°0 45°7 50°4	56·8 57·3 58·7 63·5	57·1 60·4 56·8 62·4	21·1 20·3 19·3 20·0	524 631 558 527	782 799 648 629	580 437 370 377
1stQr.Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	44·0 43·2 42·9 47·3	46·5 44·7 42·1 43·9	32·1 28·3 23·0 28·3	30·5 28·1	26·7 26·2 26·2 26·9	25·9 26·2 21·4 27·2	103·2 98·5 93·6 103·7	102·0 102·2 98·2 97·1	92·2 87·1 85·6 94·1	4·3 3·9 4·7 5·2	5·2 4.5 4·2 4·4	6·0 5·9 5·3 6·2	6·0 6·0 5·2 6·0	49·1 46·5 48·2 49·2	47·7 55·7 46·7 49·0	60·6 57·8 59·9 62·8	60.2 61.1 57.9 61.6	20·3 18·9 17·8 19·6	524 529 475 497	672 676 636 688	342 279 245 432
1929 1stQr.Av. APR MAY JUNE	43·9 42·6 44·2 39·6	46·8 44·9 45· 9 40· 3	31.5 30.9 29.2 24.5	28.6 31.5 31.1 28.3	25·7 30·2 29·2 26·4	25·2 29·7 28·9 27·1	102·0 104·1 103·4 91·5	101·4 106·5 106·8 96·7	91·9 93·8 93·0 81·9	4·0 5·0 4·6 3·9	4·8 6·0 5·2 4·4	6·3 6·8 7·8 6·1	6·4 7·3 7·4 6·4	48·4 47·1 53·4 38·4	47.6 50.2 54.7 41.1	60·4 60·2 67·4 49·9	60°6 64°8 68°9 53°5	21.6 20.3° 20.3° 19.9	521 571 591 614	763 773 773 812	362 428
JULY AUG SEPT OCT NOV DEC	48.5	41.6 45.1 43.9 46.8 45.0 44.0	22·9 24·7 24·2 27·3 30·0 31·2	31·1 30·9 26·8 25·7	27.4 29.5 28.4 30.2 28.2 27.8	27.5 30.0 28.6 29.5 29.0 28.6	93.6 101.0 98.4 110.3 108.2 106.4	96·6 107·3 104·1 104·7 101·2 98·9	85.6 92.0 91.6 101.1 100.0 98.6	4·7 4·5 4·8 5·4 5·7 4·9	4·4 4·1 4·3 4·4 4·9	6.9 6.0 6.5 7.1 6.9 6.2	6·7 6·4 6·5 6·8 6·2	53·2 50·8 42·2 50·3 48·6 44·6	51·1 48·8 41·7 47·7 49·0 46·2	66·5 63·0 55·1 64·6 63·1 58·4	63·9 60·7 53·9 60·3 62·1 60·0	18.9 20.3° 20.4 20.6 21.3 20.9*	607 616 620 622 589 581	708 705 811 783 763 661	} 360 } 499
1930 JAN FEB MAR APR MAY JUNE	39.6	43.7 43.8 40.8 58.7 41.1 38.2	30·1 24·0 24·1 20·7 23·1 20·4	22·9 23·8 21·0 24·6	28·0 25·8 28·1 25·6 27·7 24·5	28.2 26.6 25.6 25.3 27.4 25.1	101·8 88·2 93·4 83·9 91·0 83·4	97·3 94·4 91·4 85·9 9 3 ·7 87·8	93·7 79·6 85·8 76·1 82·0 75·6	4·6 3·7 4·0 3·6 3·8 3·2	5·5 4·7 4·7 4·4 4·3 3·6	6:9 5:8 6:0 5:4 5:8 4:7	7·0 6·1 6·0 5·8 5·6 4·9	44.7 41.2 42.5 36.7 39.8 33.8	42.9 42.6 40.9 39.1 40.8 36.2	58·3 51·9 53·9 46·9 51·0 42·8	57·5 54·6 53·0 50·5 52·3 45·8	22:1 22:5 19:9° 19:3 18:0°	587 607 601 578 555 526	679 776 773 696 621 600	} 427 } 230
JULY AUG SEPT OCT NOV DEC	39.2 37·2 36·6 44·1 40·6 44·4	\$8.6 \$6.7 \$5.7 40.3 \$7.7 41.9	19·1 17·5 16·5 18·1 16·5 20·6	22·0 21·1 17·8 14·2	26·0 24·2 24·6 27·7 21·6 23·8	26·0 24·6 24·8 27·1 22·3 24·4	85·2 79·9 78·6 90·9 79·4 89·6	87.6 84.3 82.5 86.2 74.9 83.9	78·6 73·6 73·2 83·7 72·6 84·4	4·4 4·0 4·2 4·4 4·8 3·5	4·1 3·6 3·5 3·5 3·5	5·2 4·4 5·0 5·3 4·7 4·7	5·0 4·4 4·9 4·9 4·6 4·7	39·7 33·1 32·0 35·9 32·7 27·6	38·1 31·8 31·7 34·0 33·0 28·6	50·7 42·8 42·7 46·9 44·1 38·5	48·6 41·1 41·7 43·7 43·2 39·5	16.9 18.6° 18.2 18.7 19.8 18.7*	439 376 397 375 358 317	547 441 532 451 424 322	} 161 } 132
1931 JAN FEB MAR APR MAY JUNE	36·2 30·0 32·5 32·5 33·3 33·4	36.9 35.3 33.2 34.2 34.5 33.9	17·9 13·3 15·1 15·5 14·6 14·1	12.6 14.9 15.8 15.5	20·4 19·5 22·3 20·9 21·0 20·2	20.7 20.2 20.3 20.6 20.7 20.7	75·5 63·7 70·6 70·0 69·6 68.6	73·3 68·9 69·0 71·7 71·4 72·2	69·5 57·8 65·2 63·4 63·9 62·6	3·7 2·8 3·0 2·9 2·8 2·6	4.46 3.5 3.5 3.9	3·7 3·8 4·1 4·1 4·0 4·0	3·8 4·0 4·1 4·4 3·8 4·2	28·7 24·0 25·6 24·3 26·0 21.7	27.6 24.9 24.6 25.9 26.6 23.2	37.6 31.8 34.0 32.5 33.9 29.4	37·3 33·7 33·5 35·0 34·7 31·4	18·4 19·2 18·2 18·2 18·2 16·9	305 320 323 302 313 302	361 486 458 397 425 393	} 33 } 23
JULY AUG SEPT OCT NOV DEC	38.6	34.6 31.4 32.7 37.3 35.9 37.5	13.6 12.5 11.2 11.9 15.3 18.5	15.7 14.3 11.7 13.2	20·7 20·1 22·6 27·2 28·7 18·2	20.7 20.5 22.8 26.6 29.5 18.7	70·2 65·3 68·3 80·7 83·2 77·0	71.8 68.5 70.7 76.5 79.2 71.9	65·2 61·4 64·5 75·4 78·3 71·5	2·7 2·6 2·7 3·4 3·4 2·9	2·5 2·4 2·3 2·7 2·6 2·9	3·8 3·4 3·7 4·3 4·1 4·0	3·7 3·4 3·7 4·0 4·1	26·5 22·0 22·2 24·0 22·9 22·7		34·3 29·1 29·8 32·8 31·9 32·1	32:9 28:0 29:2 30:6 31:2 3 1:2	14·9 16·9 16·8 17·9 18·1 17·9	286 249 232 257 277 299	377 349 367 411 439 407	} 39 } 105
1932 JAN., FEB MAR APR MAY JUNE	33.6 30.9 27.5	32.0 38.2 31.6 29.0 31.0 31.9	15·4 16·5 13·4	13·8 14·2 16·3 13·6 14·6 15·6	13·3 20·1 13·0 11·8 11·6	13·4 20·1 11·9	62·3 70·2 61·1 53·5 55·7 57·5	59.8 73.6 60.5 55.1 57.5 60.4	57:0 64:7 55:7 48:8 51:3 53:3	2·8 2·8 2·7 2·9 2·6 2·3	3·44 3·41 3·9 2·5 2.5	3.6 3.5 3.5 4.0 3.6 3.6	3.7 3.6 3.5 4.2 3.4 3.8	23·4 22·6 24·2 26.8 23·2	22.5 22.6 23.2 28.5 23.7 24.5	31:1 30:0 31:2 34:8 30:2 29:7	30·9 30·7 30·6 37·3 30·8 31·7	18·5 18·0 18·1° 17·7 17·3° 15·4	298 307 303 296 285 291	402 460 443 406 399 421	} 26
JULY AUG SEPT	29.3	28.8 27.8 29.8	10:8 11:7 11:2	12.5 14.7 14.3 ispute.	11·4 13·1	11·4 13·3 12·2	51·9 53·3 54·3	5 3 ·1 56·1 56·7	48.6 49.8	2·3 2·6 2·5	2·2 2·4 2·1	3.2	3·4 3·4 3·1	22.4	21.6 20.8 19.5	29.3	28.3 27.5 25.4	14·4 13·6	264 234 243	411 331	} 10

[†] Trade Dispute.

* NORMAL SEASONAL CHANGE REMOVED.

IMPORTS & EXPORTS—

Declared values of imports (c.i.f.) into U.K., and exports (f.o.b.) of U.K. produce and manufacture. Not imports—Total imports less exports of imported goods.—MONTHLY ACCOUNTS OF TRADE & NAVIGATION.

Total for 4 weeks ending approximately at end of month—BOARD OF TRADE JOURNAL.

PIG IRON. STEEL INGOIS & CASTINGS

OUTPUT OF standard four-week month, based upon monthly faures issued by the NATIONAL FEDERATION OF IRON AND STEEL MANUFACTURERS.

SHIPBUILDING—

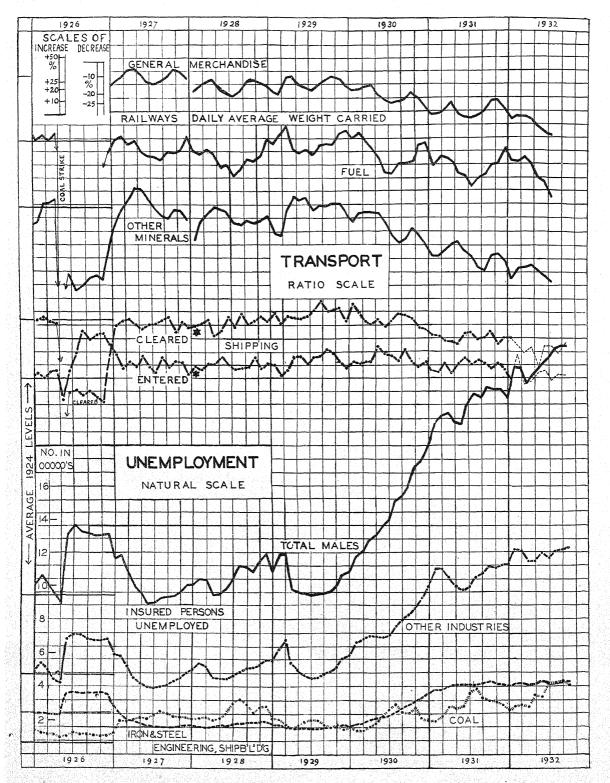
Declared values of imports (c.i.f.) into U.K., and exports (f.o.b.) of U.K. produce and manufacture. Not imports—End for TRADE JOURNAL FEDERATION.

Total for 4 weeks ending approximately at end of month—BOARD OF TRADE JOURNAL.

TOTAL FEDERATION OF SHIPPING.

[!] Total for Qr. o 4 Weeks, excluding holiday week.

^{*} Excludes Christmas week, but includes New Year



* NORMAL SEASONAL CHANGE REMOVED.

TRANSPORT.

UNEMPLOYMENT.

		SHIPPING. Tonnage of Ships Index of							WAYS.				INSUR (G1	ED P.	ERSON tain ar	IS UN	EMPLO h Irelan	OYED.	(white-styles	
	Ente	with Ca red British	clea Ports.		Time % Charter II Rates.	Preight S. Rates.	General.		Other Minerals		co Total.	G Coal.	S Iron & Steel.	Mal Bugineering	es. Shipbuilding.	S Building and Construction.	O Cotton and Wool.	S Sother Industries.	Fem Total.	Cotton and Wool.
1924 Average	461	*	544	*	100	100	544	1743	551	8.89	941	72	52	116	78	99	35	344	263	62
1926 Lst Qr. Av. 2nd ,, ,, 3rd ,, ,,	422 453 644 618	469 451 594 606	507 364 343 352	545 363 3 30 354	91 103 138	79 78 98 138	546 429 445 4 96	1778 667 336 1056	544 376 331 365	9·10 5·81 5·64 7·92	1003 1186 1314 1259	119 109 108 111	50 108 132 108	97 121 135 134	88 90 96 100	117 94 109 139	31 59 69 49	348 454 511 460	243 335 376 307	49 106 130 86
1927 st Qr. Av and ,, ,, ord ,, ,, th ,, ,,	447 511 542 503	515 509 500 496	498 536 566 517	536 520 544 518	112 113 102 102	104 95 87 93	543 532 536 550	1754 1605 1595 1672	542 598 534 524	9·42 9·00 9·07 9·11	1082 913 929 990	201 220 243 217	41 39 41 49	97 75 67 69	73 54 48 46	134 82 92 147	29 24 29 31	356 296 295 303	236 175 194 196	46 39 48 49
1928 st Qr. Av nd ,, ,, rd ,, ,,	449 514 531 516	494 512 489 509	502 535 564 545	530 519 542 546	93 90 93 113	84 83 86 96	521 496 501 530	1661 1478 1460 1630	506 536 505 516	8·95 8·34 8·37 9·84	1004 992 1108 1142	208 250 290 251	44 45 50 45	67 67 70 71	44 51 59 65	152 109 119 154	27 30 42 37	323 312 346 358	201 197 261 255	43 54 81 66
1929 st Qr. Av. PRIL IAY UNE	438 516 538 536	487 537 538 508	518 551 601 575	556 558 554 563	110 108 108 104	93 88 86 81	495 532 525 484	1797 1613 1646 1566	478 584 596 562	8·89 8·95 8·94 8·39	1122 960 956 942	176 175 198 203	40 37 37 39	71 64 65 61	53 46 46 46	200 116 104 100	36 39 37 38	377 332 325 315	253 222 221 221	60 63 69 72
ULY UG EPT OCT, OEC	589 583 513	534 539 562 549 521 497	618 648 596 622 586 517	585 625 580 589 595 542	109 116 119 104 96 88	83 83 84 77 77 77	524 513 523 579 536 477	1682 1688 1660 1811 1845 1756	578 560 548 606 573 495	9:05 8:82 8:88 9:69 9:33 8:24	947 951 961 1005 1061 1075	202 173 162 165 153 156	41 40 39 41 47 45	61 68 68 68 70 70	47 49 51 51 49 48	103 108 121 143 172 181	40 41 36 36 40 42	314 331 335 339 356 359	231 247 243 249 265 269	78 78 69 69 69 73
1930 AN EB IAR PRIL IAY UNE	498 579		581 496 533 525 598 534	542 532 551	83 84 84 86 86	61 66 58	527 468 512 484 501 436	1892 1743 1755 1563 1621 1318	537 503 540 506 465 485	9·13 8·41 8·92 8·19 8·65 7·27	1173 1209 1267 1301 1357 1396	138 142 155 177 235 254	48 47 55 64 63 63	79 85 91 98 100 107	49 50 55 55 58 62	197 195 177 160 147 147	56 63 67 71 85 91	411 425 456 465 461 469	348 374 427 460 499 515	104 127 138 157 188 208
ULY UG EPT OCT OEC	. 588 557 496	517 561 524 504	571 589 579 581 511 489	567 563 551 519	71 71 79 — 64	70 68 62 68	483 440 474 515 449 438	1480 1434 1529 1603 1640 1692	413 456 512 439	8·20 7·54 8·17 8·76 8·18 8 11	1519 1546 1605 1735 1771 1847	301 252 246 282 225 210	71 80 83 91 98 109	114 125 137 151 158 173	65 70 76 82 86 92	160 166 178 200 232 246	102 105 103 96 96 115	499 532 552 581 610 647	551 573 584 584 598 653	21 21 20 19 19 21
AN. PEB. IAR. PRIL IAY UNE.	401 478 459 511	481 510 478 511	469 423 466 465 504 507	490 473 471 464	59 54 56 56	65 66 67 70	437 395 445 427 396 415	1571 1430 1324	367 417 401 419	7·99 7·37 8·01 7·49 7·05 7·38	1972 2017 2028 1968 1957 2068	292 278 288	99 99 102 101 100 101	178 187 192 194 196 199	95 101 107 108 110 110	288 274 247 220 207 214	112 104 90 93 92 100	697 714 701 683 677 685	691 380 638 625 621 639	20 18 18 18
ULY LUG EPT OCT OV DEC	. 568 . 534 . 522 . 498	510 491 507	536 502 502 538 460 460	2 489 3 509 3 467	58 58 58 7° 7° 7°	63 62 7 73 L 74	430 395 440 479 445 423	1399 1533 1459	350 366 415 394	7·42 6·87 7·63 8·06 7·53 7·64	2128 2118 2173 2168 2167 2132	328 316 302 283	97 102 105 95 97 96	210 205 200	114 113 115 117	235 245 264 302 328 342	72	705 722 738 726 721 713	695 70° 625 56	5 21 7 22 5 16 8 13
1932 IAN. EB. IAR. APRIL MAY	423 465 413 435	540 5441 5452 477	454 410 428 446 426 465	0 458 3 434 6 451 6 392	5. 5. 5. 7. 7.	L 65 L 69 L 69 L 66	376 384 366 359	1412 1408 1383 1323 1208	316 3 338 3 326 1 328 5 320	6.671 6.90 6.64 6.44 6.04 6.08	2304 2300 2211 2270 2323 2358	294 81 344 337	100 101 100 101 107 100	206 201 204 211	116 114 113 115	349 332 326	71 66 71 96	755 732 743 774	50 44 45 49	9 1 9 7 1 9 1
JULY AUG SEPT	502 513	2 450 3 470	480 450 47') 454) 434	4.	- 56 5 59		3 110		5:81	2416 2439 2437	439	103	212	116	351	95	770	50	05 1 08 1 38 1

†4 Weeks only, after 1931.

Excluding any disqualified for benefit by trade dispute.

★ NORMAL SEASONAL CHANGE REMOVED.

§ Excludes Commerce, etc.

TRANSPORT:
SHIPPING—ENTERED
AND CLEARED
SHIPPING FREIGHTS—
RAILWAY TRAFFIC—
WEIGHT
RECEIPTS

UNEMPLOYMENT-INSURED PERSONS- Tonnage of British and Foreign vessels entering and leaving British ports with cargoes during month.—BOARD OF TRADE MONTHLY ACCOUNTS OF TRADE & NAGIVATION.

Chamber of Shipping index numbers as published by "The Statist."—PREPARED BY DR. ISSERLIS.

Tonnage of goods carried on the Railways of Great Britain during the month, excluding free-hauled.

Monthly Receipts for goods traffic, excluding cost of collection and delivery till January, 1948, then excluding receipts for collection and delivery.—MINISTRY OF TRANSPORT.

Number of books lodged at Labour Exchange on or about 25th of month.

MINISTRY OF LABOUR GAZETTE.

UNITED STATES

For description of series see Bulletin, April 23rd, 1932, page 126.

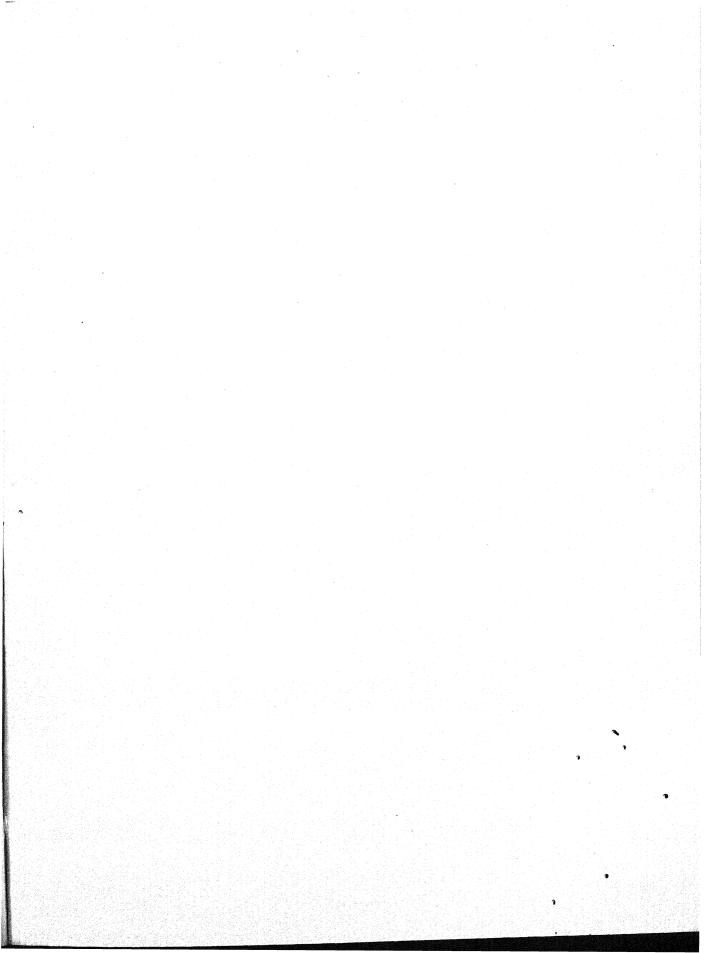
	F.R. Ba	nks	F.R.Me	em ber I	Banks	Bank I	Debits		IN	r. Ra	TES		st']	TRA	DE	PI	RODU	CTIO	N	rp.	۳	
	Discounts & Re-discounts Acceptances &		Demand Deposits	Loans & Discounts	Investments	New York City	Outside New York	Gold Move- ments	New York F.B. Bank	Call	Prime Comm'l Paper	New Securities	DowJonesInd' Shares Index	Exports of U.S. Produce	General Imports	Industrial Index	Automobiles	Pig-Iron	Steel Ingots	© U.S. Steel Corp.	Building Con- tracts Awarded	Freight Car Loadings
	Mn. 8	8) Mn. \$;	10 M	[n. \$	Mn. \$	%	%		Mn.\$	%	Mn	\$	%	000	0000	tons	tons	000\$	0000
1929 1st Qr. Av. 2nd Qr. Av. 3rd Qr. Av. 4th Qr. Av. 1930	979 1036	2578 299 298 623	1331 1311 1323 1438	1636 1652 1715 1809	5 600 575 547 556	5214 4710 4953 5226	7 2692 2658 2803 2920	32·5 25·6 23·6 -23·4	5·0 5·7 5·2	7:74 8:50 8:65 5:57	5·43 5·93 6·05 5·55	1060 1044 1150 612	282 285 324 243	14 466 393 400 459	374 388 355 346	120 125 122 108	484 591 472 206	18 345 376 368 320	463 505 477 365	422 433 388 431	21 417 587 529 388	405 449 477 430
1st Qr. Av. 2nd Qr. Av. 3rd Qr. Av. 4th Qr. Av. 1931	243 210	783 740 761 824	1307 1357 1375 1391	1667 1692 1693 1649	561 593 636 674	3553 3791 2734 2742	2407 2447 2180 2217	39·8 34·4 - 12·2 31·4	2·5 2·5 2·5 2·03	4·22 3·25 2·20 2·08	4·57 3·70 3·05 2·93	755 970 456 374	242 242 211 167	370 310 288 293	298 281 222 220	107 105 91 84	333 399 217 149	297 312 248 190	406 387 297 232	451 413 371 369	366 514 349 280	376 398 399 358
JAN FEB MARCH APRIL MAY JUNE	216 176	853 705 727 773 743 731	1368 1361 1375 1366 1361 1369	1575 1546 1538 1499 1473 1469	684 718 755 790 781 779	2456 2095 2759 2682 2507 2589	2170 1708 1942 1962 1886 1941	34·4 16·1 25·6 49·5 49·6 63·8	2·0 2·0 2·0 2·0 1·5 1·5	1.57 1.50 1.55 1.52 1.45 1.50	2·76 2·62 2·55 2·38 2·20 2·02	649 222 699 590 426 402	154 165 166 148 130 126	246 221 231 210 199 183	183 175 210 186 180 174	82 87 89 90 89 83	172 220 276 337 317 251	171 171 203 202 199 164	246 250 299 272 251 208	413 397 400 390 362 348	228 235 370 337 306 332	349 284 294 299 374 299
JULY AUGUST SEPT OCT NOV DEC	613 1	753 847 995 1425 1287 1117	1347 1324 1323 1245 1220 1187	1449 1440 1419 1352 1335 1310	781 766 792 770 751 743	2101 1750 2007 2068 1446 1923	1844 1653 1663 1813 1461 1711	19·5 57·5 20·6 -337·7 89·4 56·9	1.5 1.5 1.5 3.5 3.5 3.5	1.50 1.50 1.50 2.10 2.50 2.63	2·02 1·96 2·00 2·98 3·75 3·75	271 127 312 45 129 119	130 127 108 93 95 74	177 161 177 201 190 181	175 167 170 169 150 153	80 78 77 75 73 68	218 187 141 80 69 122	146 128 117 117 110 98	189 172 155 159 159 130	340 317 314 312 293 274	286 233 251 242 151 137	293 378 293 383 263 223
JAN FEB MARCH APRIL MAY JUNE	848 714 605 1 486 1	980 894 914 1066 1454 1747	1145 1100 1094 1114 1110 1093	1286 1259 1221 1188 1163 1126	714 700 714 715 738 749	1768 1438 1616 1556 1291 1420	1590 1287 1373 1437 1250 1291	-75.0 -90.6 -26.7 -30.5 -195.5 -207.7	3·5 3·5 3·0 3·0 3·0 3·0	2·74 2·50 2·50 2·50 2·50 2·50	3·75 3·72 3·50 3·30 2·96 2·64	194 94 190 142 123 142	72 73 74 57 49 43	147 151 152 132 129 110	135 131 131 127 112 111	71 71 68 64 61 60	119 117 119 148 184 183	97 96 97 85 78 63	146 146 141 124 111 90	265 255 247 233 218 203	85 89 112 122 146 113	22' 22' 22' 27' 20 19
JULY AUGUST SEPT OCT		1878 1887	1075 1098 1123	1100 1080 1071	770 774 820	1273 1346 1416	1251 1176 1177	- 7·1 + 6·1 +27·9	2·5 2·5 2·5 2·5	2·06 2·00 2·00		154 170 141	42 61 66 591	104 107	79 91 98	56 60	111 90	57 53 59	79 83 98	197 197 199	129 134 128	24: 20

Latest figures are preliminary.

† 1st-15th.

*5 weeks.

For prices see page 17.



ROYAL ECONOMIC SOCIETY

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- No. 35. Report on Current Economic Conditions in Europe. February, 1932.
- No. 36. REPORT ON CURRENT ECONOMIC CONDITIONS. April, 1932.
- No. 37. Report on Current Economic Conditions. July, 1932.
- No. 38. Report on Current Economic Conditions. October, 1932.

ROYAL

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ISSUED BY ARRANGEMENT WITH THE LONDON AND CAMBRIDGE ECONOMIC SERVICE

MEMORANDUM No. 39

REPORT ON CURRENT ECONOMIC CONDITIONS

January, 1933

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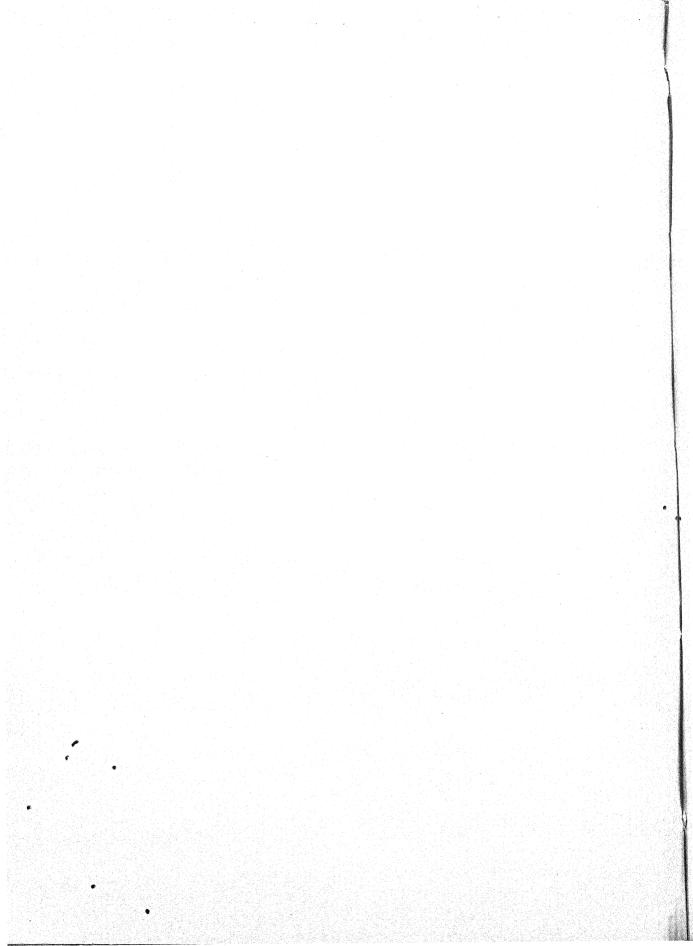
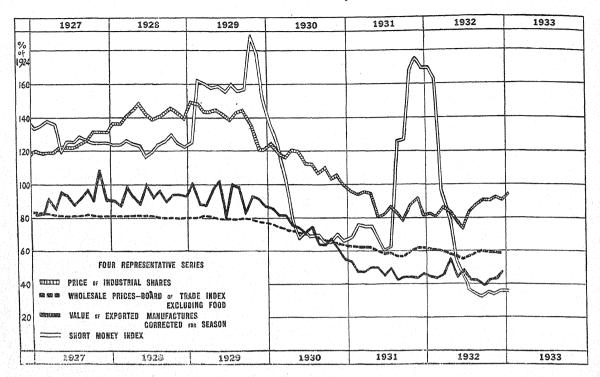


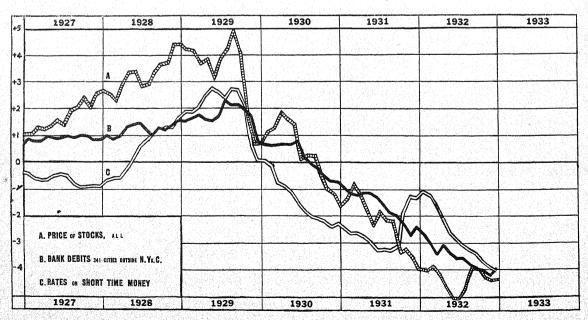
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INDEX CHART, U.K.



HARVARD INDEX CHART, U.S.A.



THE GENERAL BUSINESS POSITION.

UNITED KINGDOM.

January 20th, 1933.

The industrial statistics for 1932 show some falling off during the year in production, employment and commodity prices, and some variation from quarter to quarter, but these movements have been relatively slight, and on the whole there has been a marked stability in these spheres. Financial series, on the other hand, have been marked by greater cheapness of money, a fall in the yield of fixed interest securities, and, in the latter half of the year, by a rise in the prices of industrial securities.

While wholesale prices have fallen 5% (Board of Trade) or 9% (Statist) in twelve months, dollar prices fell about 9% (Bureau of Labor) or 13% (Irving Fisher). Meanwhile sterling depreciated 3 or 4% against dollars. Wage rates fell 1% and the Cost

of Living Index 4%.

The statistics for December do not show any significant change from those of November. Employment changed seasonally in many industries, and there was some improvement in coal-mining. Imports of materials and exports of manufactures were a little greater. The depression in shipbuilding is very acute. The price of industrial securities rose at the end of the year, and that of gilt-edged securities hardly changed, owing to the continuance of the policy of cheap money.

The recent recommendations on railway wages make it even less probable that there will be any general reduction in

money wages.

While the best that can be said for the immediate outlook here is that we may reasonably expect that there will be no relapse, provided that there is no serious relapse abroad, the situation of countries still on the gold basis is ambiguous. There is no certainty that gold prices have reached their minimum, and there are large deficits, actual or prospective, in national budgets, and many unsettled economic and financial problems.

The restriction of international investment is an important factor which will militate against the recovery of overseas trade.

UNITED STATES. HARVARD FORECAST. [By Cable.]

January 16th, 1933.

1932 closed with the curves of the index chart all recording favourable developments. A further decline in the money curve in December was accompanied by a slight advance in the speculation curve and by a considerable advance in the business curve. A single month's advance of Curve B is not conclusive evidence of a cyclical upturn, but since the positions and movements of other curves have been

forecasting business improvement, it is of much interest and may prove of decisive significance. The possibility of serious political developments or monetary unsettlement, such as might reverse the conditions shown in the chart, now lies chiefly in action regarding the Government deficit, and in inflationary proposals, factors about which scientific forecast is impossible.

ANALYSIS OF RECENT MOVEMENTS

UNITED KINGDOM.

OME modifications in type, arrangement and content of the text and tables of the BULLETIN have been introduced this month. In particular, seasonal adjustments have been made on the basis of the new computations for post-war figures published in Special Memorandum 36. A column showing the effect of eliminating seasonal changes from the Cost of Living Index has been introduced. Several of the diagrams have been re-arranged, so as to show more clearly the relationship of the series to each other and to the scales against which they are drawn; prices are still shown on a ratio scale, but other series on natural scales. Corresponding modifications will be made in the subsequent monthly Bulletins.

There has been no change in the methods of computing the original series and no loss of continuity except in the adjustments for seasonal movements. In the Tables of this BULLETIN the new adjustments have been made throughout. The following list shows the entries which would have been made for December, 1932, on the old basis, which may be wanted for the completion of any study in hand involving 1932 and earlier years.

FIGURES ON OLD BASIS FOR DECEMBER, 1932, IN THE COLUMNS MARKED "NORMAL SEASONAL CHANGE REMOVED," pp. 17-23.

m (1) 10	.00		
	80	Exports: Food	2.8
Wholesale Food Prices	57	Materials	3.9
(Statist)		Manufactures	24.4
Imports: Food	30.3	Total	33.2
Materials	12.8		
Manufactures	13.0	Shipping : Entered	458
	56.3		450

FINANCE.—During the past month prices of industrial shares have been firm, and our index at 95 is at its highest point since early in 1931. Fixed interest shares are again slightly lower on the month. The short money index is unchanged.

Fown clearings naturally declined from the abnormal figure of the previous month, but a moderate increase took place both in Country and Provincial clearings, both of which were the highest for several months. Treasury Bills issued again increased on the month, though at £926 Mn. on January 14th, they have passed the peak, which was reached at £935 Mn. on January 7th.

The Bank of England Statements have been of unusual interest during the past month. The payment of the war debt instalment in gold on December 15th caused a fall in gold held in the Issue Department from £139.4 Mn. on December 14th to £119.8 Mn. on December 21st. As the fiduciary issue was not increased, the note reserve in the Banking Department therefore fell from £42.2 Mn. to £24.7 Mn., recovering to £40.1 Mn. on January 18th in consequence of the seasonal decrease in the note circulation. Simultaneously Government Securities held by the Banking Department increased from £74.2 Mn. on December 14th, to £99.7 Mn. on December 21st, from which level they have since receded only slightly to £96.6 Mn. on January 18th. Bankers' Deposits with the Bank of England have risen during the five weeks ended January 18th by £19·1 Mn. to the high level of £105.4 Mn., although in view of the present abnormally low level of the note circulation it is possible that some part of this increase may have been offset by a decrease in the note holdings of the Joint Stock Banks.

On the whole it appears that the gold payment to America has been managed in a way which has not merely avoided deflation, but has resulted in a further expansion of central bank credit.

A similar tendency towards expansion is shown in the December average figures for the nine English Clearing Banks. Compared with the previous month, Advances declined further from £772 Mn. to £758 Mn., but Discounts increased from £389 Mn. to £406 Mn. and Investments from £409 Mn. to £455 Mn., while Deposits rose from £1,859 Mn. to £1,944 Mn. The percentage increases over November were 4'4, 11'2 and 4'6 respectively, as compared with the normal seasonal increases of 1'2%, 0'1% and 1'9%.

The December export of £18.0 Mn. of gold to America presumably reflects payments on account of the War Debt instalment. On the other hand, exports to other countries were unusually small, and total exports for the month, were only £21.3 Mn. Imports amounted to £12.0 Mn. so that the nett export of gold for the month was no more than £9.3 Mn.

New Capital issues during December were much below those of the previous month; the recent lifting of the Treasury ban on optional industrial conversions may result in some increase during the coming months.

PRICES AND WAGES.—Wholesale sterling prices of commodities in general have been nearly stationary for three months, according both to the Board of Trade and to the Statist*, the relatively slight movements for individual commodities neutralising one another. In recent weeks there has been a small seasonal rise in food prices, balanced by a reduction in prices of non-ferrous metals and textiles.

Prices in the United States (according to Irving Fisher's index) fell 4% during December, but were nearly stationary in the first fortnight

of January.

The Cost of Living Index Number fell slightly during December. The new column (p. 19) in which adjustments are made for normal seasonal changes shows how little the corrected Index has moved since July.

There was no significant change in wagerates during the month.

TRADE AND OUTPUT.—The value of Imports of Food has been lower in 1932 than in 1931, and has fallen in recent months. Part, but not all, of the fall is due to change in prices.

VALUE OF FOOD, &c., RETAINED. &Mn.

Fourth Quarter		
	1931	1932
Grain and flour	16.6	14.8
Food for animals	1.8	1.7
Meat	22.9	19.8
Living animals	5.4	3.0
Other food and drink	62.5	54.0
Tobacco	3.8	4.7
	113.1	98.0

Reduction in value 13½%.

Reduction in wholesale food prices.—

Board of Trade ... 6%

Statist 10%

As regards the first entry, there has been a reduction in the quantity of wheat, wheatmeal and flour imported from about 53 Mn. cwt. in the last four months of 1931 to about 37 Mn. cwt. in the last four months of 1932, and also large reductions in maize, oats and barley.

There has not been any unusual, large variation in the amount of meat imported, but the importation of beef in the fourth quarter was 10% lower than in 1931.

The reduction in the great miscellany merged under "Other food and drink" is due

partly to fall in price and partly to the balance of an increase in sugar and other commodities and a reduction in potatoes (of which the importation in 1931 was unusually large) and other foods. None of the movements in quantity appear to be of much importance.

The importation of Materials increased more than seasonally from October to December, but was lower (allowing for the season) than in the third quarter of 1932. How much of the reduction from 1931 is due to fall of price and how much to a fall in quantity cannot be determined till next month.

Exports of manufactured goods were greater in value in December than in November, though a seasonal reduction is normal. The principal constituents of the increase of £1·10 Mn. are cotton goods £0·78 Mn., woollens £0·23 Mn., and vehicles £0·49 Mn., against a reduction in iron and steel manufactures of £0·20 Mn., and other minor changes.

The value of exports of manufactures was £908,000 greater (4%) in December, 1932, than a year earlier, but there was some decrease in other categories, especially coal.

In December, however, the output of coal increased nearly to the level of two years ago. There was little change in the output of iron or steel.

UNEMPLOYMENT.—The principal change in the unemployment returns for January is an increase of about 50,000 in the number fully employed in coal-mines and a corresponding reduction of the number temporarily stopped.

INSURED PERSONS UNEMPLOYED. (000's.)

		21st, 1932 Temporarily Males	Dec. Wholly	19th, 1932 Temporarily
Coal Others	240 1766	115 274	238 1767	67 264
All	707	Females	310	130
Total	2329	520	2315	481

The changes, other than in coal are small and mainly seasonal, and in general in close accordance with the estimates made in Special Memorandum No. 36, on Post-War Seasonal Variations. In the Memorandum the changes in the general percentages unemployed between November and December are -0.3 for Males, -0.2 for Females and -0.3 for the two combined. The changes in this period in 1932 are rather greater, being -0.6, -0.4 and -0.5 respectively.

There is usually an increase of unemployment after Christmas, and the normal change in the percentage for all from December to January is +0.7, i.e. about 65,000 persons.

^{*}The "Financial Times," however, gives averages for October, 104'0; November, 103'7; December, 102'3; last week in December, 101'6; 2nd. week in January, 101'2. (3rd. week of September, 1931 = 100).

FINANCE, INDUSTRY AND TRADE IN 1932.

FINANCE.—The price of Industrial Securities rose in the first quarter of 1932, fell rather sharply from March to June, recovered in July and August and finally rose at the end of the year. Fixed interest securities rose considerably with the reductions of the Bank Rate in March, and made a further considerable step on the announcement of the terms of the Conversion Loan at the end of June; their index which stood at 90 in December, 1931, was above 122 in December, 1932.

The Bank Rate was reduced from 5 to 4 and to $3\frac{1}{2}\%$ in March, to 3 in April, to $2\frac{1}{2}$ in May and to 2% on June 30th.

There was an increase in New Capital Issues for the United Kingdom in the last quarter of the year to a moderately large amount, but with the restrictions on investment the issues for abroad remain low.

Provincial Bank Clearings were greater in 1932 than in 1931, but did not show the usual increase in the last quarter.

PRICES AND WAGES.—Sterling Prices of Commodities, which had fallen uninterruptedly from October, 1929 to September, 1931 (about 27% in two years), rose about 7% after the lapse from the gold standard to the end of 1931, fell especially in the second quarter of 1932, and at the end of the year were at about the same level as in September, 1931. Though there has been considerable variation between commodities, the movements have been similar for food as a whole and materials as a whole.

Gold prices in the United States have continued their fall in the last 15 months with little interruption; the reduction is given as 17% by Irving Fisher's Index Number. In the same period the Sterling-Dollar exchange has fallen rather more than 30%.

Retail Food Prices and the Cost of Living Index have varied very little during 1932, but they have been lower than in 1931. The relation between the movements of wholesale and retail food prices have been that which experience leads us to expect.

The only numerically important reductions in wages in 1932 were of building operatives, dock-labourers, and cotton workers. According to the Ministry of Labour Gazette, the net

change in the weekly wage-bill in the United Kingdom was about £250,000, which is probably less than 1% averaged over all wage-earners. Our index of wage-rates shows a reduction of $1\frac{1}{2}\%$.

For persons fully employed real wages are at very nearly the same level as in the summer of 1931, and (if we depend on the Cost of Living Index Number) about 15% higher than in 1924.

When allowance is made for unemployment, it is doubtful whether the aggregate of real wages is the same, or a little greater or less, now or eighteen months ago; but in eight years the total weekly sum paid in wages has probably fallen less than has the cost of living.

TRADE AND OUTPUT.—The outstanding change in foreign trade in 1932 is the reduction by nearly one-half of the value of imported manufactures. Imports of materials fell off after the first quarter of the year more than is accounted for by change of prices. (See Table A, p. 10.) The value of imports of food has also fallen, but, so far as can be ascertained, there seems to be no important reduction of quantities that is not ascribable to change of date of importation or change in the stock in the United Kingdom.

The value of Exports was lower, especially in the first and third quarters, in 1932 than in the corresponding quarters of 1931; in the second and fourth quarters there was little difference. The details for categories of manufactured goods are given in Table B (p. 10), and the distribution of the more important classes among countries is shown on p. 11. Except in the case of cotton, the changes between 1931 and 1932 are not very conspicuous and can hardly be summarized; but using also the Table of p. 356 of the Bulletin for November, 1932, we can judge that India and Australia and New Zealand have been better customers, while exports to the United States have fallen off.

The Index of Production showed some increase in the first half of the year 1932 over that of 1931*; this was followed by a fall in the third quarter, part of which was seasonal, to a lower level than in 1931, and the relative difference

^{*} Our Index gives a greater increase for the first quarter than does that of the Board of Trade. The increase is due to a balance of considerable output in textiles and some less important groups over a fall in coal and shipbuilding.

ANNUAL STATISTICS

	1913	1921	1922	1923	1924	1925	1926	1927	1923	1929	1930	1931	1932
FINANCE— New Capital Issues £Mn. For Great Britain ,, Total ,,	44 242	100 216	100 236	68 204	89 224	132 220	141 253	176 315	219 363	159 254	127 236	43 89	84 113
BANK CLEARINGS— London—Town £Mn. Metropolitan , Country , Provincial—5 Towns** , 11 Towns ,	14191 1856 1389 783	30268 1660 3002 1485	32781 1575 2806 1483 1797	32270 1547 2811 1489 1801	35039 1594 2900 1554 1881	35801 1678 2958 1556 1856	35346 1661 2818 1334 1628	36820 1758 2973 1408 1710	39311 1854 3039 1384 1673	39936 1882 3079 1321 1599	38783 1812 2964 1108 1348	31816 1668 2752 989 1200	27834 1610 2668 1028 1238
DISCOUNT RATE— Average minimum charged by Bank of England %	4.77	6.09	3.69	3·49	4.00	4.55	5.00	4.65	4.5	5.5	3.42	3.95	3
NATIONAL FINANCE— Public Revenue £Mn. ,, Expenditure ,,	198 197	1125 1079	914 812	837 789	799 796	812 826	803 842	843 839	836 818	815 830	858 881	851 851	849* 849*
PRICES— AVERAGE FOR YEAR— WHOLESALE (Board of Trade)— General % Materials % Food % Cost of Living (Ministry of Labour) %	100 100 100 100†	197 191 209 220	159 155 165 181	159 161 154 174	166 166 166 175	159 155 166 175	148 144 155 172	141 136 152 167	140 134 152 166	136 132 145 164	119·5 115·5 127 157	104 100 112 147	102 97 111 143
TRADE & OUTPUT— IMPORTS:—Food, Drink & Tobacco &Mn. (including Cotton, RE-EXPORTS) Wool, Manufactures,	295 71 38 270 201	567 73 43 271 244	472 87 63 298 230	509 93 50 325 257	571 122 74 400 300	570 126 76 425 320	530 84 65 392 315	539 68 64 352 322	531 81 64 335 318	535 77 63 340 334	475 45 45 250 307	417 27 35 173 262	375 31 34 164 158
Total Imports ,,	769	1086	1003	1096	1277	1321	1241	1218	1196	1221	1044	861	703
EXPORTS:—Food, Drink and Tobacco of British Produce All Raw Materials, Iron & Steel Mnfctrs., Machinery, Cotton Manufactures Woollen ,, ,, All Manufactures,	34 51 66 55 34 126 36 414	37 43 64 64 75 179 55 589	36 73 102 61 52 187 58 569	44 100 131 76 45 177 63 580	57 72 106 74 45 199 68 619	55 50 84 68 49 199 59 617	50 19 47 55 46 154 51 539	52 46 76 69 50 149 57 564	54 39 70 67 54 145 57 579	56 49 79 68 54 135 53 574	48 46 64 51 47 88 37 440	36 35 47 30 33 57 25 292	32 32 44 28 30 63 24 276
Total Exports ,,	525	703	720	767	801	773	653	709	724	729	571	391	365
Re-Exports—Food, Drink & Tobacco ,, Raw Materials ,, Manufactures ,,	16 64 30	30 50 27	22 55 27	25 67 27	30 76 34	32 90 31	26 74 25	27 71 25	28 66 26	26 54 29	24 38 24	20 26 17	15 24 12
Total Re-Exports ,,	110	107	104	119	140	154	125	123	120	110	87	64	51
Excess of Imports—Goods & Bullion ,,	146	264	166	195	324	384	475	390	358†	366	391	374	307
OUTPUT—Coal Mn. Tons. Pig-iron 000 Tons. Steel Shipbuilding:—Commenced 000 Tons. Launched ,, ,,	287·4 10260 7664 1866 1932	163·3 2616 3703 569 1538	249·6 4902 5881 404 1031	276·0 7440 8482 953 646	267·1 7307 8201 1050 1440		126·3 2458 3596 582 638	251·2 7293 9097 1764 1250	237·5 6611 8525 1297 1443	257·9 7589 9636 1649 1525	243·9 6192 7326 950 1486	3772 5203 200	72
TRANSPORT— SHIPPING (with Cargoes):— Tonnage entered Mn. Tons. ,, cleared ,, ,, ,, RAILWAYS (Gt. Britain):—	49·1 67·8	37·1 36·4	43·4 59·7	51·1 70·7	55·4 65·3	55°5 62°3							
Tonnage carried— General Merchandise Mn. Tons. Fuel , , , , Other Minerals , , Goods Receipts £ Mn Passenger Train Receipts ,,	225.6	54·2 128·3 39·7 109·8 105·9	56·7 200·1 49·4 115·8 101·8	222·3 63·0 110·1	66.3	193·7 63·3 104·0	48·7 85·3	195·9 66·5 110·7	187.3 62.2 103.6	207·2 65·7 107·0	193·3 58·6 99·	3 173.7 3 47.8 7 90.8	7 3 8
UNEMPLOYMENT—all insured per-		15.0		44.0	70.7	11.3	12.5	0 9.7	10.8	3 10.4	16 [.]	1 21	3 22.1
sons %		17·0° 42·8						450.00					

^{*} Budget estimates on old accounting basis.

^{**} Birmingham, Bristol, Liverpool, Manchester, Newcastle.

July, 1914. \$ Provisional.

[°] Excluding coal-miners disqualified for benefit.

^{††} Excluding special transfer of £19 Mn. of Bullion to France.

remained in the fourth quarter, when the index was 4% lower than a year before and 6% lower than in the fourth quarter of 1930.

The fall is attributable specially to ship-building and coal. The textile industries show a considerable improvement relative to 1931 in the first two quarters, less in the third, but a loss in the fourth probably owing to the disputes in the cotton industry.

EMPLOYMENT.—The number of insured per sons employed—that is excluding from the estimated total all those ill, on strike or recorded as unemployed—is computed by the Ministry of Labour.

INSURED PERSONS EMPLOYED * Thousands

inousanas	
0 1931	1932
3 9320	9421
0 9487	9375
4 9353	9204
2 9525	9409
֡	3 9320 0 9487 4 9353

* These figures are not affected to any great extent by the changes in administration in the autumn of 1931.

The movements here indicated do not agree closely with either Index of Production. The seasonal movement is less pronounced, and the reduction in production is greater than the reduction in employment, as might be expected, since there is much lost time that is not recorded.

Unemployment, after a relatively stationary total of 1,100,000 to 1,300,000 insured persons out of work from 1924 till the end of 1929, increased rapidly for two years to nearly 2,900,000 in September, 1931. This increase was much greater than that of the number insured (due to the growth of the population of working ages), so that the number at work fell. From October, 1931, to the end of 1932 there have been seasonal and other fluctuations, but little variation in the total; in all 100,000 to 200,000 have been added during the year.

The totals on the registers of the Labour Exchanges can be subdivided as follows:—

Applying for insurance benefit Applying for transitional payments Uninsured or not entitled to benefit	% %	Jan. 56 33 11	1932 June 51 38 11	Dec. 46 42 12
		100	100	100
		193	52	
Last spell of unemployment	J	an.	Dec.	
Less than 3 months	% '	56	54	
3 to 6 months	7	16	13	
6 to 12 months	- 97	14	14	
12 months or more	%	14	19	
	-	100	100	

Though the number completely out of work for a year remains a small proportion of all, it has increased during the year, and in December amounted to over 500,000 persons.

SUMMARY OF QUARTERLY STATISTICS.

TOTALS.	-	19				193	31			19	32	
FULAIDI,	lst Qr.	2nd Qr.	3rd Qr.	4th Qr.	lst Qr.	2nd Qr.	3rd Qr.	4th Qr.	lst Qr.	2nd Qr.	3rd Qr.	4th Qr.
BANK CLEARINGS: Town (ex Metropolitan) Country Provincial (11 Towns) CLEARING BANKS:	£ Mn. 10292 771 385	£ Mn. 9782 742 333	£ Mn. 9529 720 311	£ Mn. 9180 730 319	£ Mn. 9079 717 319	£ Mn. 8745 677 287	£ Mn. 7932 664 285	£ Mn. 6060 694 308	£ Mn. 6493 689 318	£ Mn. 6970 665 298	£ Mn. 7256 638 312	£ Mn. 7115 676 311
Deposits* Advances* NEW CAPITAL ISSUES in Gt. Britain:	1721 973	1747 962	1775 938	1810 920	1781 913	1714 917	1711 897	1686 890	1646 889	1677 854	1801 805	1885 771
All For United Kingdom IMPORTS RETAINED:	69·5 36·3	72·4 37·4	28·0 19·0	66·3 34·7	45·4 21·2	25·5 6·7	8·2 5·2	9·5	27·0 20·5	47·8 33·9	3·3 3·3	34·9 23·2
Food, Drink and Tobacco Materials:	114	108	107	123	93	94	96	113	91	85	85	98
Partly Manufactured Cotton	11 16 51 78 64 259	10 9 43 62 65 233	9 5 42 56 60 225	9 12 35 57 58 240	8 7 32 47 50 192	8 6 29 43 50 190	7 4 29 40 52 191	9 9 31 49 60 225	6 8 33 48 36 177	4 7 27 38 28 153	4 5 25 34 30 151	5 9 26 40 32 171
Materials Manufactures—Cotton Other Total British Exports	19 30 98 164	16 22 88 141	15 19 86 136	15 16 80 129	12 15 63 103	12 13 58 96	11 14 57 93	12 14 56 97	11 17 54 92	11 17 56 95	10 15 49 84	12 15 54 94
EXCESS OF IMPORTS: Goods and Bullion	106	94	87	106	82	114	65	115†	81†	79†	74†	731
TONNAGE OF SHIPS (with cargoes): Entered from abroad Cleared for abroad	1392 1610	0000 1659 1656	Tons 1756 1738	1565 1581	1329 1358	0000 1528 1477	Tons 1667 1541	1505 1458	1300 1292	00 1424 1336	00 Tons 1507 1408	1374 1303
PRODUCTION: Coal (13 weeks) Pig-iron (5 months) Steel , , ,, Shipbuilding (commenced)	7014 192 237 427	5911 180 199	Tons 5634 133 165 Tons 161	6164 115 128	5948 101 139 33	5479 99 126	Tons 5111 84 119 Tons 39	5801 91 134	5750 99 137 26	5304 94 131	00 Tons 4666 81 123 10 10	5544 83 134
INDEX OF PRODUCTION: Bulletin % of 1924 Board of Trade ,,	109·6 111·0	100.9	90·7 99·5	92·7 99·0	85·1 95·0	80·6 92·1	81·1 89·3	90·5 97·1	92·3 95·1	83·9 94·3	80·0 87·3	

^{*} Mean weekly averages.

Including sovereigns at their face value.

INDEX NUMBERS.		Datasa		19	930	1		193	1			193	-	
Percentage of 1924 level.	-	Date in Quarter	lst Qr.	2nd Qr.	3rd Qr.	4th Qr.	lst Qr.	2nd Qr.	3rd Qr.	4th Qr.	lst Qr.	2nd Qr.	3rd Qr.	4th Qr.
PRICES OF COMMODITIES— General—Board of Trade Statist	•••	Last month Last day	74·9 74	72·6 69	69·5 65	65.5 62.5	63·7 61·5	62·1 59·5	59·7 58	63·7 61·5	63·0 60·5	58·9 55·5	61·4 58	60·8 56
Materials—Board of Trade Statist	•••	Last month Last day	73·4 72	70·4 66·5	67·0 62·5	63·3 59	62·1 58·5	59·1 56	57·0 55	61·5 58·5	5 9 ·7 5 7	55·0 52·5	59· 7 56·5	58·1
Food—Board of Trade Statist		Last month Last day	77·7 76	76·6 72·5	74·4 70	69·8 67·5	66 [.] 8	68 [.] 1 65	64·9 63	67·8 65·5	69·5 65·5	66·8 59·5	64·6 59·5	64 . 56
Retail—Food Cost of Living	 	Last day	84 90	83 88·5	84 89	81 87·5	76 84	76 84	75 83	77 84	-74 82-5	73·5 81·5	73·5 81·5	7 8
Wage Rates	•••	Fortnight after end	98.5	984	984	98‡	97	97	96 ⁷	964	95≩	95₹	95	9
PRICES OF SECURITIES— Industrials Fixed interest SHORT MONEY	•••	;; ;;	120 100-3 82	112 99·7 69	103 101·3 65	96 103·5 68	94 100°2 75	86 101·5 62	87 92·6 168	82 93·4 169	83 104 79	83 122 35	90 127 34	9 12

TABLE A. NET IMPORTS OF RAW MATERIALS (EXCLUDING RUBBER) AND CERTAIN PARTLY MANUFACTURED GOODS. DECLARED VALUES. £ Mn.

TOTAL COMMUNICATION OF THE CONTRACT OF THE CON	1924.	STREET, SERVICE DISCOURT ON THE SERVICE	19	980.			19	31.			19	32.	
	Quarterly Average.	1	Quai 2	ters.	4	1	Quar 2	ters.	4	1	Quai 2	rters.	4
Pig iron, etc Copper, tin, lead, zinc Yarns Leather	1.8 5.4 1.8 2.9	1.6 5.0 1.8 3.0	1·2 4·6 1·5 2·9	1·2 3·9 1·3 2·8	1·3 3·4 1·6 3·1	1.0 3.1 1.3 2.3	·9 3·4 1·2 2·5	-9 2·6 1·1 2·4	1.4 2.8 1.6 3.5	2·7 ·5 2·4	·5 1·9 ·2 1·4	2·3 ·2 1·2	2.8 2.2 1.4
Minerals (non-metals) Iron Ore Other Metals Wood Oil Seeds, &c. Hides Paper Materials Silk	1 3 2 1 3 7 12 6 12 1 2 0 2 9	1·3 1·7 3·7 6·9 9·1 2·7 2·9	1.4 1.6 3.6 9.0 9.2 .8 3.2 .3	1·2 1·0 2·5 15·4 7·3 1·9 3·0 ·2	1.0 .9 2.3 11.0 6.8 .9 3.0	1.0 .7 1.8 4.2 6.6 .9 2.3	.9 .7 2.0 5.4 6.9 .0 2.0	9 1.5 11.2 5.3 1.2 2.6	.9 .5 1.7 8.0 5.3 1.2 3.0	1.0 .6 1.7 3.9 6.7 2.4 2.8	·7 ·5 1·7 6·1 5·4 ·8 2·0 ·4	·8 ·4 1·1 8·7 4·8 1·3 2·2	.8 .5 1.5 6.7 5.2 .8 2.8
Other Textiles (except Cotton and Wool) Cotton Wool	3·4 27·5 10·9	4·0 16·3 12·5	2·3 8·7 7·3	1·1 4·6 4·0	1:4 12:0 4:6	1·8 7·3 8·8	1.6 5.5 8.0	-9 3·8 2·1	2·4 9·5 4·9	2·9 8·4 8·4	1·3 6·5 6·9	8 5 3 2 0	1.6 9.3 3.2
Total, both groups and miscellaneous	92-8	75.7	59.6	54.3	5 0 ·0	45.2	42.9	39.5	49.1	47.8	36.6	33.7	39.8
Total excl. cotton and wool	54.4	46-8	43.6	45.7	39.4	29.4	29.4	33-6	34.7	31.0	23· 2	26-4	27.3

TABLE B. EXPORTED MANUFACTURES-DECLARED VALUES. £ Mn.

	1924 Qrly.		Quar				19: Quar	ters.			193 Quart	ers.	
	Av.	1	2	3	4	1	2	3	4	1	2	3	4
Coke	1.6	1.0	-6	-9	1.0	8	•5	•7	·9	.7	•5	-7	•8
Earthenware	3.2	3.3	3.1	3.0	2.6	2.0	2.2	2.1	2.1	1.8	2.0		1.8
Iron & Steel	18.5	15.4	13.3	11.9	10.8	8.0	7.8	6.9	$\overline{7}\cdot\overline{7}$	7.1	7.1	1·8 6·5	7.3
Other Metals	3.9	3.7	3.0	2.6	2.7	2.0	1.6	1.7	i 6	1.5	1.7	1.5	2.1
Cutlery	2.2	2.0	1.9	1.8	1.7	1.3	1.3	1.3	1.4	1.3	1.5	1.3	ī·ŝ
Electrical Goods	2.7	3.3	2.9	3.1	2.7	2.3	1.9	1.6	1.6	1.4	1.4	1.3	1.7
Machinery	11.2	13.0	12.0	11.0	11.0	8.8	8.2	7.3	8.2	7.9	8.2	6.6	6.0
Wood	5	-6	- 12.5 5	6	5	-4	•4	.3	.4	.3	•3	∵2	6·9
Cotton	49-8	30.3	21.6	19.5	16.2	15.2	13.4	14.1	13.9	16.7	16.6	15.1	14.5
Wool	17.0	12.2	7.2	9.7	7.8	7.4	5.0	6.8	5.9	6.6	5.3	6.2	5.9
Silk		4	•4.	·4	.3	'·ʒ̄	.3	.3		-2	-3	·2	∵ž
Other Textiles	6.9	5.9	4.9	4.6	4.1	3.2	3.1	3.1	3.2	3.3	3.4	3.0	3.4
Apparel	7.5	5.8	4.3	5.3	4.4	3.8	3.0	3.8	3.4	3.2	3.0	2.9	2.8
Chemicals	6.4	6.2	5.6	5.1	5.0	4.3	4.6	3.9	4.2	4.3	4-8	4.0	2·8 4·3
Oils	2.2	2.1	1.9	1.8	1.6	1.4	1.3	1.2	1.3	1.2	1.2	1.3	1.4
Leather	1.8	1.5	1.5	1.2	î·ĭ	8	8	∵.8	9	1.7	-7	1:3 :6 1:5	- 9
Paper	2.3	2.3	2.1	2.1	1.9	1.6	1.2	1.6	1.7	1.6	1.7	1.5	1.7
Vehicles*	6.7	11.0	15.2	11.6	12.9	8.3	9.0	7.0	4.0	4.4	7.0	3.0	5.4
Rubber†	1.5	7.8	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	7.7	.6	•5	.6	.5		-5	•5	3·9 ·5	5·4 ·£
Total, including Miscel-		-						<u>17. (8).</u>			<u>, </u>		
laneous	154-7	128.4	110.3	104·8	96-3	78.4	72.0	70.7	69-5	70-2	72.8	63.9	68.8

^{*} Including rubber tyres after 1924

[†] Excluding rubber tyres after 1924.

Value of chief articles exported in the years 1931 and 1932 to the principal countries concerned.

	1931	Year 1932		1931	ar 1932		Yes 1931	
	ě	£000		£0	00		£00	10
POTTERY, ETC.	362	261	RAIL LOCOMOTIVES (Steam and other)			COTTON PIECE GOODS—continued		
Denzil	. 54	80	Argentine Rest of S. America	405	2	India & Cevlon	5847 544	8805 714
Argentine	204	186	British S. Africa	36 42	13 8	Iraq Straits Settlements & Malay		
Duitich India	149		British S. Africa British India Other Countries	650	67	States Australia	466 3250	838 4153
	170	125	Other Countries	364	216	Australia New Zealand Canada Other Countries	767	1010
Canada	. 702			1497	306	Other Countries	746 4635	722 4876
Other Countries			MACHINERY (Electrical).					2816
To S. Ireland	3171		Europe S. America	200	1404	To S. Ireland	819	799
10 B. Heland	.	_	S. Africa British India	379	191 440	WOOL TOPS & WORSTED		
PIG IRON & FERRO ALLOY	\mathbf{s}			714	749 139	YARN. Sweden	472	5 55
Belgium			Other Countries	1491	764		1430	1527
France		51		4359	3687	Japan Canada Other Countries	172 869	208 851
U.S.A Other Countries	72		MACHINERY (Prime Movers,			Other Countries	2485	3614
Other Countries	- 1	_	not electrical)				5428	6755
	104	8 632	Russia France	488	183	To S. Ireland†	204	254
			Spain	128 47	113 72	WOOL & WORSTED TISSUES		
PLATES & SHEETS (1)	ot		Spain Rest of Europe S. America British S. Africa	407 189	348	Germany Netherlands	1242	717 505
coated). Japan	28		British S. Africa		112 169	Belgium France	566	483
British India	19	1 167	Straits Settlements	573	439 36	France	856 367	525 298
Australia & New Zealand	1	6 221	Australia.	170	116	Italy Other European Countries	1662	1795
Other Countries	86	9 1634	Other Countries	693	697	China	1060 813	870 688
	195	1 2451		2893		Japan U.S.A Chile and Peru	695	527
			TEXTILE MACHINERY.	-		Brazil, Uruguay, Argentine	176 1486	72 973
GALVANISED SHEETS.	10	7 124	Russia		82 183	Brazil, Uruguay, Argentine British S. Africa Australia New Zealand	771	628
Dutch E. Indies	5	3 34	Germany Netherlands	200	204	New Zealand	315	101 382
British W. Africa	16		France	1. 989	182	Canada	1324 2742	1097
British B. Africa British India	41		Rest of Europe China	407	502	Other Countries		2717
GALVANISED SHEETS. Dutch E. Indies Argentine, Uruguay British W. Africa British I. Africa British India Australia New Zealand Other Countries	18		China	263 160	337		14736 557	12378 513
New Zealand Other Countries	160		S. America	237	320	To S. Ireland		313
	317		British India Australia	1749	1935	LINEN PIECE GOODS. U.S.A	1327	
To S. Ireland			Other Countries		425	Cuba Brazil and Argentine	87 129	79 226
SHEETS (Tinned, etc.)		_		5281	5511	Australia and New Zealand	322	409
Norway		59 _23			-	Canada Other Countries	177	169 857
Denmark	20	7 24 4 64 85	COTTON YARN. Norway, Sweden, Denmark Germany and Poland Notherlands Belgium France Switzerland Releasie	537	722		-	
	62	489	Germany and Poland	3599	2769 767	APPAREL. British S. Africa	3128	
France Spain		53 54 20 215	Notherlands	361	289	British S. Africa	1408 15	926 19
Italy	6	37 107	France	368	134	Australia New Zealand	461	
Dutch E. Indies China (with Hong Kong)		23 341 07 592	Bulgaria			Canada	182	2073
Japan	3	615	Roumania	010		Other Countries		
Brazil Argentine		36 270 31 456	U.S.A Brazil	254	147	[발레이탈 (조리 등이 : 라틴] 그 하다	4359 1288	
British India	1	39 160	Argentine	1 707		계대화 위에 교통으로 하는 사람들이 없는 것이 되는		- 1010
Straits Setts, and Malay		07 888	China and Hong Kong	703	839	BOOTS AND SHORS.	330	179
Canada Other Countries		35 551 31 1960	Australia	100		New Zealand	235	164
Omer Countries	19	_ _	Other Countries	1 7705		Other Countries	973	994
	67	77 7524		10895	10420		1538	1337
COPPER MANUFACTUR	ES		COMMON DIRECT COCCE		1-	To S. Ireland		1059
Egypt British India		88 60 90 196	COTTON PIECE GOODS. Norway, Sweden, Denmark	. 1844		LEATHER.	199	14.
Australia		31 64	Germany	. 769	604		283	13
New Zealand Other Countries		06 60 30 433	Netherlands Switzerland	. 839	605	U.S.A	455	
		-	Turkev	. 572	403 1858		•	-
	10	45 813	Rest of Europe Dutch E. Indies	. 892	991	되었다. 사람들으로 하는 것 같아 있다. 그 나를 했	2086	
TIN (Blocks, etc.)		00 00	China (with Hong Kong)	. 2146			-	_
Sweden Germany		00 95 36 28	Peru & Chile	. 33	3 233	PAPER.	47	1.6
France	2	09 213	Brazil	. 9		British India	16	7 \ 8
U.S.A Canada		17 638 29 26	Colombia	. 68	2 817	7 L Australia and New Zealand	112	
Obber Comptries		35 742	Egypt	. 120 . 359			-	-1
	14	26 1742	Foreign W. & E. Africa .				223	4 24
			 In the control of the c		A	, or ∎are to the control of the con	ムム・チェ コケビ	COLD BOOK 17

IRON AND STEEL STATISTICS FOR U.K. 000 tons.

***************************************	ologica signification of Asia	I	IG-IRC	N.†	angada at kahing ing kahing ka			CRUD	E STEE	L.	EXPOI	RTS OF STEEL.
		Produc- tion	+ Im- ports	- Ex- ports	=Home Cons'mp- tion	% Imports to Home Consump- tion	Pro- duction	*Im- ports	Home Con- sumption	% Imports to Home Con- sumption	Semi- Finished	Finished
1913 1923 1924 1925 1926 1927	Qrly. aver'ge	2565 1860 1840 1559 610 1826	46 27 77 71 124 152	236 223 150 140 148 83	2375 1664 1756 1490 653 1895	1·9 1·6 4·4 4·8 1·9 8·0	1916 2122 2054 1849 890 2275	215 138 271 289 390 421	2131 2263 2324 2139 1280 2695	10 6·1 11·7 13·5 30·5 15·6	209 540 470 188 145 251	751 1153 1146 600 · 521 712
1928 1929 1930	" 1 2 3	1653 1895 1923 1797 1328	30 38 72 68 109	114 136 107 84 87	1569 1797 1888 1781 1350	1·8 2·1 3·8 3·8 8·1	2131 2415 2374 1988 1653	286 247 334 245 210	2417 2662 2708 2233 1863	11.8 9.3 12.3 10.9 11.3 18.9	245 252 225 159 150 139	702 699 647 567 506 426
1931	1 2 3 4	1012 993 841 911	62 67 83 62 93	39 48 63 44 47	1172 1031 1014 859 958	5·3 6·5 8·2 7·2 9·7	1284 1389 1261 1186 1339	300 227 294 302 434	1584 1616 1555 1489 1773	14.0 18.9 20.3- 24.5	99 98 88 104	331 355 316 374
1932	1 2 3 4	989 944 812 828	58 42 28 30	33 43 19 32	1014 943 821 825	5·7 4·5 3·4 3·6	1373 1309 1230 1344	266 212 155 105	1639 1521 1385 1449	16·2 13·9 11·2 7·3	99 98 129 126	339 336 286 333

[†] Inc. Ferrous Alloys.

STOCKS OF STAPLE COMMODITIES.

Table supplementary to the summary table, p. 2, Special Mem. 32.

Beg	inning of	(1) American Cotton. 1,000 bales	(2) Tin.§ 1,000 tons.	1,000 U.S.	ad.	(4) Spelter 1,000 tons.	(5) Rubber. 1,000 tons.	(6) Sugar. 1,000 tons	(7) Tea. Mn. lbs.	(8) Coffee. Mn. bags.	(9) Wheat. § Mn. bush.	Petrol- eum. Mn. barrels
1931	Jan	6,471	52.6	92.2	8.3	140	506	7,018	262	32.2	535	603
	April	7,000	60.0	116.5	13.5	140	547	8,453	242	31.1	554	591
	July	7,625	62.0	124.6	13.5	144	545	7,007	203	28.2	433	587
	Oct Nov Dec	8,553 8,648 8,811	61.5 61.2	118·6 124·9 128·6	13·2 12·5 12·5	138 139 138	570 600 615	6,811 7,621 8,897	195 207 219	34·0 34·8 35·8	486 516 528	557 553 557
1932	Jan. Feb. March April May June	8,713 8,713 8,744 9,115	61.7 61.4 61.0 61.5 61.7 61.9	135·2 143·1 148·1 151·0 151·2 155·2	13·1 13·3 13·8 14·7 14·1 13·9	138 137 136 138 140 140	644 651 644 646 646 644	8,577 8,247 8,641 9,091 8,738 8,387	260 248 240 213 171 182	36·9 36·9 36·7 36·9 35·8 33·0	589 621 605 584 525 481	568 568 570 570 571 571
•	July	10,975 11,213† 11,203† 10,935†	60·9 59·9 57·9 58·6 58·5 57·9	161·1 160·7 156·6 153·4 149·8 155·9	15.7 16.1 16.8 16.5 17.3 19.2	140 141 136 127 123 121	615 601 617 622 629 634	8,069 7,718 7,532 7,018 7,778 8,901	182 184 203 219 239 264	31.5 * * * * * 31.1	433 386 374 455 486 481	559 560 556 545 536
1933	Jan	The second secon	56.8	his see	20.2	125_	650t		286			

^{*}Not available. †Provisional. \$New series based on official estimates. ||Of this reduction, 18,000 tons is due to revision of estimate of Malay Stocks.

^{*} Blooms, Billets, Sheet and Tinplate Bars.

⁽¹⁾ Total supply seasonally corrected, exclusive of European and Asiatic mill stocks.

⁽²⁾ London Metal Exchange Visible Supply plus "Tin" estimate of Straits Stocks.

⁽⁸⁾ U.S. and Mexico refined stocks to April, 1980. U.S. only since: U.K. stocks in official warehouses.

⁽⁴⁾ Visible supply in U.K. and U.S.

⁽⁵⁾ An estimate of World's stocks supplied by Rubber Growers'

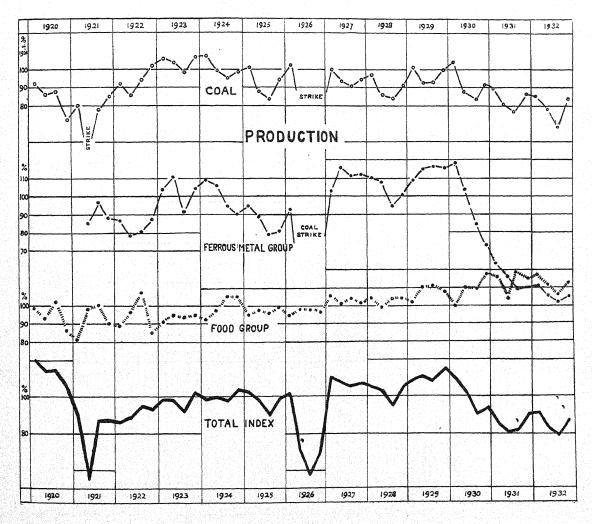
⁽⁵⁾ An estimate of World's stocks supplied by Rubber Growers
Association.
(6) Total visible supply.
(7) Tea Brokers' Association.
(8) Visible supply in Brazil (Ports and Interior, including
São Paulo Government stock), Europe and U.S.A.
(9) Stanford Wheat Studies Estimate of World's Visible Supply.
(10) Stocks of Crude and Refined Oils in U.S.

THE PHYSICAL VOLUME OF PRODUCTION.

THE Index Number of Production for the fourth quarter of 1932 is 87'I. This, compared with the corresponding figure for 1931, 90'5, shows a decline of 3 points from that level, and with the figure for the third quarter of 1932, 77'8, an increase of 9 points. The rise in the earlier part of 1932 on 1931 has not been maintained in the last six months of 1932.

Individual industry figures show changes of varying kinds. Coal output is not at as high a level as in the corresponding period of 1931, the Iron and Steel Group figures are still influenced to a great extent by the decline in shipbuilding, though the steel figure has begun to increase. The Non-Ferrous group figure is lower than in the fourth quarter of 1931, as is also the case with the Textile figure. The same is also true of the Food, etc., figure.

QUARTERLY INDEX OF PRODUCTION.



QUARTERLY INDEX NUMBERS OF PRODUCTION. Average 1924=100.

	Final Index.		8 1185	98.8 9 99.9 2 97.9 72 103.8	.3 102.6 14 98.2 16 90.1 .2 99.1	.7 102.2 .4 72.0 .8 67.3 .5 69.7	3.0 110.8 2.1 108.1 5.4 105.9 1.2 107.4	2.4 105.7 3.0 108.7 3.8 \$6.4 2.9 106.2	1.2 106.3 5.6 111.0 9.7 108.8 7.0 114.8	5.3 109.6 7.0 100.9 5.4 90.7 2.5 92.7	1.6 86.1 1.0 80.6 1.1 81.1 2.6 90.5	.1 91.3 .5 83.2
VIII	up ex I. Paper. vy mi-	000 tons 244·3	86	104 127 114	6 77.3 4 99.4 4 108.6 4 111.2	0 91 5 114 6 114 4 103	0 6 112 8 126 9 124	8 82.4 8 118.0 .3 99.8 .7 122.9	.1 111.2 .1 136.6 .4 139.7 .4 147.0	.6 116 .7 127 .2 125 .2 125	9 101.6 5 94.0 9 121.1 5 142.6	2 143·1 1 101·5
VI.	Group Index (incl. heavy Chemicals.)		62	95.4 103.0 101.0 101.2	107.6 94.4 82.4 87.4	90. 72. 84.	107	104.8 103.8 93.3 102.7	100.1 102.1 103.4 105.4	94.5 88.8 97.7 84.2	87328	89.2
	Oil Seed crush ing.	000 tons 435·3	1	109-9 97-8 87-8 104-5	118.2 91.1 93.0 84.6	92.8 84.6 80.4	82.8 77.5 66.8	98.8 99.8 72.7	109.2 86.0 69.7 87.7	3 79.7 69.2 5 59.1 75.7	82.0 8 86.4 67.4 75.8	88.2
	Group Index.		209	92.5 97.8 104.9 104.8	94.8 97.8 96.0 99.4	95.2 98.6 97.8 96.8	105.7 101.4 104.2 101.6	104.4 99.3 103.5 104.2	101.9 110.6 111.3 107.9	99.8 110.3 109.3 117.1	115·3 103·8 118·1 115·2	117.2
٧.	Tobacco	000 Ibs. 36,477	42	95-6 99-7 101-9 102-7	96:3 105:2 110:2 108:5	102·5 112·7 104·8 112·8	107-2 110-0 118-7 121-9	116·9 124·3 127·7 133·6	123·3 139·1 141·1 142·1	138.3 136.7 138.0 145.4	142.9 122.5 132.8 128.4	121.3
	Cocos.	ewts. 259,231	17	109.6 89.6 88.7 112.1	109-9 113-3 99-2 112-1	119:3 114:4 87:6 113:9	144.3 82.4 102.8 101.3	121.4 103.7 102.5 101.0	115.3 116.7 103.4 108.3	99.9 121.7 96.5 121.6	151.2 95.9 118.6 99.5	168.0
	Wheat and Flour.	000 cwts. 31,914	90	85.4 99.6 111.6 103.3	89.2 89.3 88.4 91.1	82:2 87:0 97:9 84:0	92:4 103:6 98:0 92:3	93.2 86.4 92.7 91.8	87.0 94.9 100.1 91.4	81.3 91.8 99.8 101.9	89.9 97.5 110.8 114.2	98.0
	Group Index.		216	101.0 90.8 83.2 125.3	134.2 124.0 99.5 129.0	130.4 102.1 82.2 107.0	139.0 118.2 108.2 113.5	118.4 112.0 98.1 119.7	120.8 114.7 94.1 124.5	112.9 90.6 68.4 87.7	79·3 84·8 82·1 110·2	111.6
17	0/2		10	74.6 94.3 111.5 119.5	112.2 152.0 81.9 79.3	92.7 96.5 86.3 105.0	108-2 101-8 96-9 147-6	151·1 136·6 140·8 158·0	147.3 142.2 162.8 175.0	159.0 125.0 127.2 140.7	142.0 139.7 145.7 177.9	199·1 215·4
	Cotton.	bales 689	88	104·2 90·4 79·7 126·0	136:9 120:6 101:6 135:1	135·0 102·8 81·7 107·2	142.8 120.2 109.6 109.3	114.4 109.0 92.9 115.0	117.6 111.4 85.8 118.6	107.3 86.4 61.3 81.3	71.7 78.1 74.3 102.0	100.9
	Group Index.		25	96.6 90.4 111.6 101.2	100.0 102.6 111.2 110.3	117.6 103.8 114.4 119.2	125·9 123·5 118·7 119·8	117·5 122·9 106·9 112·1	111:5 120:5 117:7 114:7	111.8 117.2 114.3 119.4	92.4 121.9 101.0 110.6	105-9 95-5
111	Lead, Tin and Zinc.	tons 87,967	69	96·4 87·3 118·5 97·7	102:3 108:9 117:0 124:9	123·8 111·1 110·4 121·5	131.6 115.8 124.4 114.2	109.9 120.0 94.3 106.5	106·1 120·3 120·4 109·7	119.7 113.7 100.4 123.9	96.0 138.1 115.7 123.6	115.6 95.2
	Copper.	tons 39,626	99	96-9 93-8 104-1 105-0	97.4 95.7 104.8 94.3	110.9 95.8 118.8 116.7	119·7 132·0 112·4 125·9	125·8 126·1 120·6 118·2	117.4 120.8 114.7 120.1	103·1 121·1 129·4 114·5	88.6 104.2 85.0 96.5	95.4 95.8
	Group Index.		341	109.0 106.2 94.6 90.6	95.1 89.2 79.4 81.1	92.8 49.4 25.1 32.7	103.4 116.0 111.3 112.0	110-1 107-7 94-9 100-8	109-1 114-8 116-4 115-9	118·1 104·1 85·2 72·9	63·2 55·8 49·1 50·1	50.9 46.2
	Railway Vehicles	tons 9,929	و	142.7 112.9 78.3 66.1	167.9 150.0 111.9 98.5	188.6 149.1 94.0 82.6	67.0 155.7 196.3 244.6	199·3 265·1 154·2 126·2	139.9 131.6 152.8 149.9	149.0 180.8 151.2 189.8	104-9 75-7 76-2 22-5	31.3 18.4
1	P- ling	000 tons 1,373	93 93	100.0 106.7 103.1 90.1	79.5 74.1 67.6 57.4	55.6 55.6 48.6 48.1	87.2 100.6 111.8 114.7	104·9 87·6 79·4 90·5	98·8 105·9 105·4 113·6	117.6 101.4 81.4 66.2	50.6 40.5 30.4 29.2	20.5
•	Steel.	000 tons 2,050	36	111.2 106.0 90.8 92.8	94·7 88:5 83:3	103:8 36:1 8:8 24:9	122:3 121:1 102:8 97:7	106·5 102·7 99·2 107·4	117.0 120:0 126:0	118 ^{.4} 97 ^{.0} 82 ^{.5} 64 ^{.0}	67.7 62.9 57.9 66.8	67.0 63.9
•	Pig Inon.	000 tons 1,827	12	105·0 102·8 97·1 96·3	94.4 90.6 75.9 80.5	87.8 36.7 4.4	91.8 112:3 100:3 94:8	93.3 94.0 85.4 89.1	91.6 105.3 110.5 107.5	105·1 98·4 72·7 62 ·9	55.4 54.4 46.0 49.9	54.2
-	Cosl- mining.	000 tons 67,308	232	107.3 99.3 95.0 98.4	100'8 87'8 83'6	102.5 29.8 10.4 41.6	100.0 93:5 94:1	97·1 86·1 83·8 91·4	101.2 93.1 93.3 99.5	104:2 87:8 83:7 91:6	88.3 81.4 76.2 86.2	85.4 78.8
Omorno.	1 .	Average quarterly production,	Weights.			니티까국	чам4	H004	H0164	нака	Нам4	
Ċ	Inda	qua prod	Wei	Year. 1924	1925	1926	1927	1928	1929	1930	1931	1932

FOREIGN EXCHANGES.

	Paris	Milan	Berlin	Amster- dam	Prague	Berne	Stock- holm	NewYork	Buenos	Rio de Janeiro	Bombay	Hong- kong	Kobe
	f. to £	1. to £	M. to £	fl. to £	kr. to £	f. to £	kr. to £	\$ to £	d. to \$	d. per mil.	d. per rup.	d. per \$	d.peryen
rity	124.21	92.46	20.43	12.107	24.02	25 ·2 215	18·159	4.866	47.58	27	18	-	24.58
1928	124.18	92.81	20·384	or 1919 to 12:084 [June, 19 164.13	28 RATE: 25.255	SEE EA 18:161	RLIER BU 4.8642	LLETINS. 47.43	5 90	17.91	24.54	22.65
JLY UG	124.23	92·74 92·74	20·364 20·356	12·101 12·097	163·76 163·65	25·211 25·200	18·134 18·130	4·8538 4·8508	47·41 47·34	5·91 5·91	17·95 18·06	24·50 24·36	22·29 22·69
OT	124.18	92·61 92·57	20·363 20·354	12·096 12·082	163·63 163·64	25·200 25·190	18·138 18·143	4·8498 4·8495	47·34 47·47	5·92 5·91	18·06 18·07	24·55 24·59	22·88 22·96
OV EC	124·11 124·10	92.66	20.360	12.078	163.72	25.178	18:132	4.8525	47:36	5-89	18.062	24.51	22.75
1929 N	124·08 124·23	92·67 92·70	20·402 20·447	12·091 12·115	163·83 163·84	25·207 25·231	18·138 18·155	4·8503 4·8525	47·42 47·39	5·91 5·90	18·056 18·013	24.49	22·56 22·38
B AR	124.24	92.68 92.70	20·455 20·475	12·117 12·090	163·85 163·93	25·229 25·214	18·170 18·173	4·8529 4·8534	47·28 47·28	5·86 5·87	18·008 17·965	24·08 23·92	22·05 22·08
PRIL AY		92·65 92·67	20·415 20·335	12·067 12·074	163·85 163·73	25·190 25·198	18·154 18·113	4.8510	47·24 47·17	5·87 5·87	17·912 17·854	23·68 23·66	22·11 21·77
JNE JLY	123·99 123·88	92.74	20.359	12.086	163.90	25.221	18:100		47·23 47·21	5·87 5·88	17·818 17·830	23·89 23·87	22·54 23·13
UG EPT		92·74 92·69	20·361	12·103 12·093	163·83 163·76	25·203 25·164 25·176	18·101 18·101 18·141	4-8479	47·20 46·82	5.87 5.86	17·869 17·871	23·73 21·73	23·42 23·58
OV	123.89	93·16	20·397 20·389	12·098 12·087	164·41 164·57	25.151	18.149	4.8777	46·26 45·86	5·80 5·56	17·886 17·936	21.18	24·01 24·10
EC 1930	123.92	93.24	20.386	12.096	164.47	25.109				5.52	17.931	19.47	24.23
AN EB	124.16	93·05 92·87	20·387 20·366	12.102	164.58	25·198 25·136	18.124	4.8621	42.70	5·55 5·72	17·907		24·28 24·38
IAR PRIL	. 124.26	92·84 92·78	20·382 20·375	12.125	164.11	25·094 25·108	18.092	2 4.8634	43.61	5·81 5·86	17.860 17.835	18.40	24·38 24·39
UNE	. 123.90	92·71 92·76	20·365 20·372	12.081 12.086	163·97 163·85	25.084	18:09	5 4.8588	41.67	5.63	17:816	15.45	24.41
ULY	. 123.66	92·88 92·98	20·383 20·387	12·092 12·089	164·05	25·04/ 25·04/	7 18.11	2 4.8708	3 40.67	5·34 4·87	17.790	15.88	24·37 24·41
EPT	. 123.77	92·83 92·80	20·404 20·412	12·067 12·058	163.79	25.02	18.09	6 4.8589	38.50	4.98	17.780 17.81 17.78	3 15.81	24.21
OCT	123.65	92·78 92·72	20·379 20·369	12·068	163.79					4·85 4·73			
)EC 1931				12.066	163.90	25.07	5 18.13	6 4.855	0 34.48	4.45	17.78	2 12.06	
IAN FEB	123.94	92·74 92·81	20.418	12.103	164.08	25.18	1 18.14	7 4.856	5 35·63 5 38·60	3.87	17.84	9 12.08	24.41
MAR APRIL	124.28	92·74 92·82	20.406	12.106	164.06	25.23	5 18.14	8 4.860		3.33	17.85	6 11.82	24.41
MAY JUNE		92·91 92·94	20·434 20·496	12.088	164.18	25.08	1 18.14	8 4.865			A 100 A 20		
JULY		92-86 92-87	20·969† 20·573	12:057 12:046	163.96	3 24.92	2 18:15	8 4.857	3 31.96	3.16	17.76	9 11.81	24.42
SEPT	115.64	88·02 75·37	19·361 16·702	11·34 9·62	132·79	19.83	16.81	T 3.886	32.03	3.49	18.88	30 15.0	30.0
NOV DEC	94.83	72·14 65·96	15.717 14.261	9·26 8·35	125·2 113·4	19·09		3·719 1 3·372					
1932	1	67:89	14-489	8.54	115.8	17:58	17.8						
JAN FEB	87.80	66.80	14·548 15·25	8·56 8·99	116.6 122.4	3 18.78	18.2	9 3.634	38.7	3 4.0	2 18.1	57 16.4	3 21.43
MAR APRIL MAY	95.16	72.84	15·79 15·44	9·26 9·07	126·4 123·7	6 18.79	19.5	8 3.6.4	35.8		2 17.9	29 15.1	0 20.99
JUNE	92.65	71.29	15:38	9.02	122.0	0 18.69	Service Control		2 +	5.0	4* 18.0	61 15.4	8 18.6
JULY AUG	88.71	67.91	14·97 14·60	8.63	117.4	0 17.8	7 19.4	7 3.47	6 † 1 40 [.] 4		0 18.1	70 16.2	5 16.4
SEPT OCT	86.60	66.29	14·59 14·30	8·64 8·45	115.4	4 17.6	1 19.4	2 3.39	9 41.2				
NOV Week endi	ng		13:79	8·12				8 3.19	6 44.2				17 15·3 05 15·3
Dec. 3	82-44	63.04	13·44 13·53	8.00	108.7	2 16.7	4 18.2	27 3·21 33 3·28	5 43.0)2 5.4	12 18.1	L8 15.	69 15.3
,, 17 ,, 24	85.28	65.02	13.79 13.97	8.36	112.2	7 17.2	8 18.3	3.32	8 42.2				
,, 31 1933			13·94 14·03	8.31				38 3.39	1 42		38 18· 38 18·		
Jan. 7	85·58 85·88	65.39	14:11	8.3	112.	2 17-4	1 183	33 3.38			38 18		

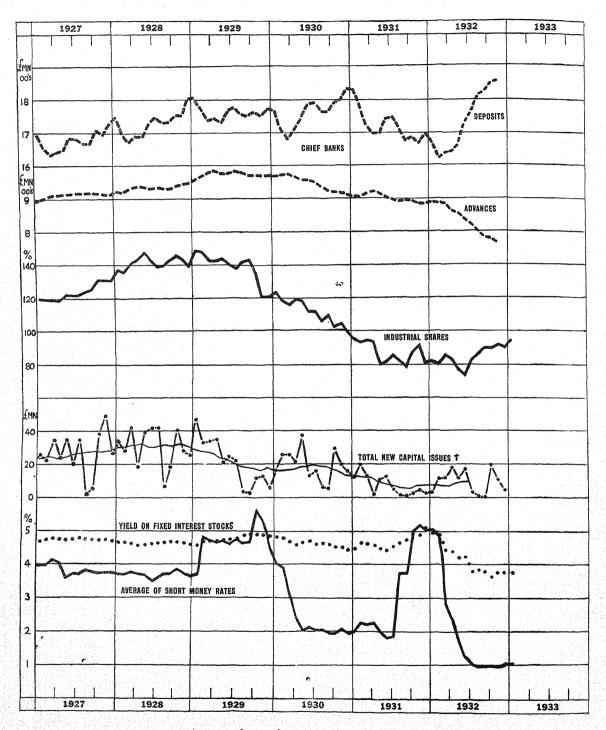
[†] Sellers.

Zurich from November 12th, 1929.

^{††} Excluding week ending July 18th, 20°518

^{*} Quotations nominal.

FINANCE.



^{† 12-}months moving average superimposed.

FINANCE.

T			ocks &	SHAR	ES	NE		BANK	CLE	BING				OTI	ier b	ANKIN	IG.	MORNING A		mi	M	IONEY	
ACTION AND ADDRESS OF THE PERSON ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON ADDRESS O			strials 보호	Fix Inte		CAPIT	CAL	Londo Clear	n Banl ing Ho	ters'	Pro- vincial	Ban Engl				9 Clea Ban			NAME OF TAXABLE PARTY.	BILLS	lex.	rate.	ė
		New Index of Price	Sensitive Index Month-to-Month Variations	Index of Price	Index of Yield	for U.K.	for Abroad.	Tow		Country.	11 Towns.	Private Deposits.	Bank and Currency Notes.†	Deposits.	Discounts.	Advances.		Ratio of Cash to Deposits.	Ratio of Advances to Deposits.	TREASURY 1	Short Money Index	Day to day ra	3 months' rate.
		%	%	%	%	£Mn	£Mn.	£M	n	£Mn.	£Mn.	£Mn.	£Mn.	£Mn.	£Mn.	£Mn.	£Mn.	%	%	£Mn.	Sh	%	%
NAME OF TAXABLE PARTY.	1924 Average	100		100	100	7.4	11.2	2070	*	226	147	109	390	1632	242	791	324	11.7	48.5	601	100	2.43	3.45
	1926 1st Qr. Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	114 113 114 116		96·8 97·0 96·2 95·5	103·3 103·1 103·9 104·7	14·7 8·1 8·5 15·7	11:3 9:8 6:2 10:2	2070 2100 1990 2150	1980 2050 212 5 2170	231 219 205 226	141 123 117 128	107 103 108 104	371 381 374 371	1610 1600 1634 1662	209 195 226 225	866 875 874 887	255 244 247 251	11.7 11.9 11.3 11.8	53·8 54·6 53·5 53·4	611 578 624 667	140 137 137 140	4·15 3·92 3·95 4·02	4·54 4·37 4·40 4·63
	1927 1st Qr. Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	119 121 124 131		97·0 96·6 96·6 97·3	103·5 103·5	17.8 16.5 7.2 17.2	9·8 5·8 6·8 20·4	2228 2253 2040 2240	2125 2200 2180 2260	251 238 224 238	135 131 129 140	105 98 100 101	364 377 376 376	1660 1659 1672 1711	220 200 211 233	803 913 919 916	245 237 236 236	11.6 11.7 11.5 11.5	54·5 55·1 54·9 53·5	642 576 609 651	135 127 126 125	3·91 3·68 3·66 3·59	4·23 4·07 4·33 4·32
	1928 1st Qr. Av 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	138 145 141 143		98·6 100·4 98·9 99·0	99·6	20·6 12·4	16·0 12·5 9·8 8·9	2320 2430 2240 2330	2220 2370 2390 2350	237 242 227 242	138 133 122 132	105 100 102 101	375	1706 1703 1738 1770	226 210 251 252	923 934 932 942	241 232 239 243	11·1 11·1 11·1	54·2 54·8 53·3 53·3	594 541 605 712	125 121 123 126	3·58 3·52 3·52 3·61	4·22 3·91 4·16 4·36
	1929 1st Qr. Av 2nd ,, ,,		_	98·8 97·5			15·1 8·7	2410 2340	23 00 22 90	241 243	135 122	63 ^{**} 3 61+3		1775 1748	249 201	968 981	247 244	10·7 10·9	54·6 56·1	755 722	149 158	4·39 4·45	4·97 5·26
	JULY AUG SEPT OCT NOV DEC	136 142 144 135 121	- 4.2 + 2.5 + 1.1 - 5.2 - 11.3 + 0.5	94·2 93·5 93·9 94·1	106·2 107·0 106·5 106·3	13·9 2·2 1·5 7·5 6·3	8·3 1·4 1·2 4·0 6·6 1·2	2370 2250 2410 2440 2450 2170	2520 2470 2510 2430 2410 2465	248 226 224 248 242 248	129 112 114 123	63+3 65+3 63+3 70+3 55+4	6 367 6 371 6 362 7 360 2 358	1778 1759 1754 1765 1751 1773	234 225 222 227 231	985 980 971 971 970 971	242 242 242 242 241 235 236	10.7 10.7 10.9 10.7 10.6 11.3	55·4 55·7 55·4 55·0 55·4 54·8	757 776 772 787 792 805	160 156 157 189 177 151	4·73 4·13 4·21 5·27 5·38 4·64	5·33 5·47 5·49 6·22 5·66 4·80
	1980 JAN FEB MAR APR MAY JUNE	124 119 116 120 119	+ 0: - 4: - 2: + 6: - 3: - 7:	95·5 96·1 98·1 100·3	1 104.2 1 102.0 3 99.7 1 101.7	2 8·0 0 16·9 7 11·9 7 17·8	5.6 18.2 9.4 9.4 20.1 5.5	2770 2340 2360	22 10 23 10 2670 22 30 24 10 23 40	234 249 235	104	64+3 59+3 59+3 66+3 58+3	5 348 6 350 6 361 6 356	1767 1714 1682 1712 1742 1788	218 181 207 246	973 976 970 957	233 229 225 225 231 233	10.9 10.6 10.8 10.9 10.7 10.6	58·0 56·7 54·9	615 571 585	136 125 104 82 68 71	4·04 3·85 3·35 2·23 1·94 2·13	4·11 3·96 3·03 2·49 2·14 2·33
	JULY AUG SEPT OOT NOV DEC	106 110 103 105	+ 2· + 2·	99.2 99.7 9 101.3 8 103.9	2 100·9 7 100·9 8 98·9	9 3·5 4 2·4 7 12·8 3 11·5	2·6 17·7 8·4	2100 2340 2220 2070	2440 2210 2040	224 207 250 226		66+ 65+ 66+ 60+	56 364 34 367 34 358 36 357 33 355 33 372	1794 1767 1764 1791 1801	279 284 296 310	936 927 924 920	250 255 257 265	10.6 10.5 10.5	53.0 52.6 51.6 51.1	648 649 656 672	69 69 65 65 70 66	1.88 1.96 1.69 1.65 2.04 1.52	2:37 2:29 2:09 2:11 2:23 2:30
	1931 JAN FEB MAR APR MAY JUNE	94 95 94 80	$\begin{vmatrix} -3 \\ +2 \\ -3 \\ -17 \end{vmatrix}$	5 98: 7 99: 0 100: 0 103:	5 101· 6 100· 2 99· 0 97·	8 6.0 6 7.4 9 1.4 6 .9	13.6 6.0 10.1	2060 1960 2270 1980	1980 1880 2170 2020	218 213 228 228 218	99 98 94 93	58+ 59+ 61+ 62+	33 350 34 347 33 350 35 354 34 353 34 352	1836 1782 1726 1698 1700 1744	2 299 6 238 8 209 0 222	909 921 925 919	293 295 295 297 274	10.5 10.5 10.3 10.4	51.0 53.3 54.5 54.1	646 587 559 1 571	68	1.87 2.50 2.23 2.31 1.98 1.56	2·17 2·52 2·62 2·61 2·26 2·12
	JULY AUG SEPT OCT NOV DEC	82 78 87	$\begin{vmatrix} 2 & -6 \\ 3 & -3 \\ +15 \\ 2 & +8 \end{vmatrix}$	8 99· 3 97· 8 92· 8 94·	2 101 9 102 6 108	3 1.6 9 1.3 1 2.5 5 4.3	3 5 3 0	1690 1680 1430 1 1380	1860 1750 1420 1360	202 2 192 2 217 2 212	87 79 98 93	58+ 58+ 70+ 60+	34 359 35 360 50 352 51 357 38 355 38 364	175 170 167 168 167 170	8 26 5 23 8 23 0 23	1 898 4 897 5 896 8 887	5 286 7 286 6 286 7 284	3 10.4 3 10.2 3 10.2 4 10.2	52.4 2 53.6 2 53.1 2 53.1	4 655 656 1 600 1 626	125 126 168 175	3.69 4.31 5.02	
	1982 JAN FEB MAR APR MAY JUNE	80 86 83	$ \begin{array}{c c} $	2 93· 2 103· 0 104·	7 107 4 97 5 96 4 91	2 9: 0 11: 0 9: 7 8:	1 2:1 1 1:0 6 8:4 9 3:1	9 1750 0 1700 4 1640 4 1640) 1680) 1631) 1560) 1680	0 208 5 214 0 216 0 215	102 95 5 94	73+ 73+ 78+	38 355 32 345 32 354 35 358 33 358 34 357	163 164 166	1 20 9 21 3 23 1 24	5 886 5 88 8 86 5 85	3 26 8 26 6 27 8 28	1 10.5 5 10.4 2 10.4 4 10.6	5 54 1 4 54 1 4 52 1 6 51 1	8 574 2 576 7 613 7 61	163 3 97 2 79 7 54	4·27 2·48 1·98 1·38	5·11 2·64 2·36 1·57
	JULY AUG SEPT. OCT NOV DEC	96 96 92	$\begin{vmatrix} 6 & +7 \\ 0 & +8 \\ 0 & -1 \\ 2 & +2 \end{vmatrix}$	9 120	2 83 5 82 8 79 9 81	·9 — ·7 — ·0 11·1 ·8 10·1	3 7:1 3 7:1	1480 1470 9 1590 5 1890 3 480) 16 2 8) 15 3 6) 168	5 194 0 188 0 210 0 2 06	92 5 88 0 98 5 99 5 99	89+ 890+ 83+ 82+ 86+	34 366 34 366 33 362 35 361 33 359 34 372	181 182 185 185	3 37 6 39 3 38 9 38	3 80 0 78 9 78 9 77	3 34 9 36 2 39 2 40	8 10° 6 10° 9 10°	4 44· 4 43· 2 42· 2 41·	2 79 2 85 2 87 5 86	1 33 4 37 2 37 0 33	5 ·73 2 ·65 4 ·73 3 ·69	72 .69 .84 .77
	1933 JAN	98	5 + 2	7 122	3 82	·2		11		1_	1	105	⊢32 3							92		5 .7	92
			NOR			ONAL			REM	OVE	D									igure O mated N		1000	

STOCKS & SHARES-NEW CAPITAL ISSUES-BANK CLEARINGS-

† Exclusive of Investments in Affiliated Banks.

For Table of Exchanges see p. 15.

Index Nos. of Prices and Yield as percentage of 1924 level; on 15th of month.

Sensitive Index.—Geometric Mean of monthly percentage changes.

Issues during month in Gt. Britain (a), for U. K. (b), for Abroad, excluding Government loans, etc.—See

MONTHLY REVIEW OF THE MIDILAND BANK, ITD.

Total of Town Clearings (i.e., excluding Metropolitan) of London Bankers' Clearing House for 3 weeks covering

Stock Exchange settlement days. Consols settlement flay, and 4th of following month, Country Clearings
of London Bankers' Clearing House and Provincial Clearings for 11 towns—proportionate totals for 24 working days.

Deposits, other than public, 11th-17th of month, Issues amalgamated. November 22nd, 1928.

"Current, Deposit and other accounts" etc. Averages for the month of 9 clearing banks (i.e.—excluding
the National Bank, Ltd.).—MONTHLY REVIEW OF THE MIDILAND BANK, LTD.

Total outstanding in middle of month (11th-17th).

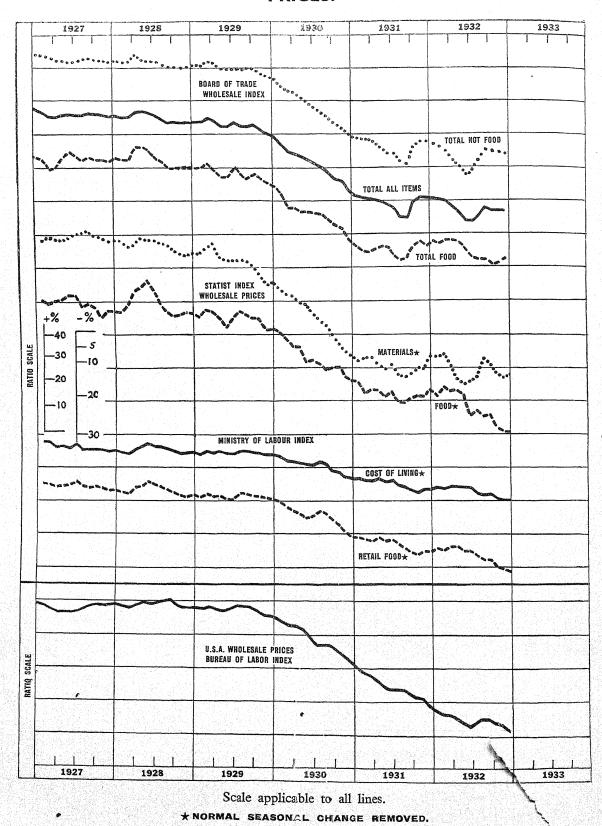
Average of Bank Rate, Bankers' Deposit Rate, 3 Months' Bill Rate and day-to-day rate for week ending 15th of month, expressed as percentage of 1924 average.

Day-to-Day Rests and 3 Months' Rets. Averages for week ending 18th of month.

‡ Issues amalgamated Nov. 22, 1928.

BANK OF ENGLAND-PRINCIPAL BANKS-TREASURY BILLS-SHORT WOMEY INDEX-

PRICES.



PRICES AND WAGES.

U.S.A. PRICES.

_		WHOLESALE.											WAGES.		B. OF	LABOR
	Bar Silver (Cash).	Board of	of Trade Ind Food.	Materials.	Statist	(Sauerbe	ck) Index Raw	Nos.	Cos	t of	abour. Fo		New Index of Average		Wholesale Index General	Retail Index (Food)
	d. per oz.	%	%	etc.	%		aterials.	Total.	Liv %	ing. %	%	ж. %	Weekly Wages %		Wh In	##E %
1924 Avera		100	100	100	100	*	100	100	100	*	100	*	100*		100	100
4th ,,	Av 31.0 ,, 30.2 ,, 29.1 ,, 25.2	88·6 87·2 90·2 90·4	92·8 93·1 92·5 93·9	86·3 84·1 89·0 88·5	91 92 93 90	90·5 91 93 91·5	92 89 90 94	92 90 91 92	98 96 98 101	97:5 98 98:5 99:5	96 94 95 99	96 96 95·5 95·5	100·5 100·5 100 100·5		104 102 101 100	111 110 107 111
1927 1st Qr. 2nd ,, 3rd ,, 4th ,,	Av 25·3 ,, 26·1 ,, 25·5 ,, 26·4	85.6 84.8 85.1 84.8	90·8 91·6 91·8 91·3	82·9 81·2 81·6 81·5	89 91 87 85	88·5 90 87·5 85· 5	88 87 88 89	89 89 88 87	97 94 94 97	96·5 96 95 94·5	94 91 93 96	94 94 93·5 92·5	101 101 101 100·5		97 [.] 5 96 97 98	108 107 105 107
1928 1st Qr. 2nd ,, 3rd ,, 4th ,,	,, 26.3 ,, 27.0 ,, 27.0 ,, 26.6	84·6 86·1 83·8 83·1	91·5 95·3 90·4 89·2	81·1 81·4 80·5 79·9	89 94 86 85	88·5 93·5 86 85	86 87 84 84	88 89 85 85	94 94 94 95	94 96 95 93·5	92 91 92 93	92 94 92 90·5	100 100 99·5 99·5		98 99 100 98	104 5 105 106 108
1929 1st Qr. 2nd ,,	. Av 26.1	83·6 82·2	89·5 87·0	80·5 79·7	86 84	85·5 83	86 81.	86 82	94 92	93·5 93·5	90·5 82	90·5 90	99·5 99·5		98 97	106 105
JULY AUG SEPT. OCT NOV DEC	24·2 24·2 23·8 23·0 22·6 22·6	82·7 81·8 81·7 81·9 80·6 79·7	89·4 86·8 85·8 87·2 85·6 84·6	79·2 79·1 79·5 79·1 78·0 77·1	86 84·5 83 82·5 80 81	86 85 84 83·5 81 81	80·5 80 79·5 78 76 76	83 82 81 80 78 78·5	93 93·5 94·5 95·5 95·5 95	94 94 93·5 93·5 93	90 90 5 91 5 93 5 93 5 93 5	91.5 91 90.5 90.5 90 89.5	99·5 99·5 99 99 99		98 98 98 97 95	109 110 110 110 109 5 108
JAN FEB MAR. APR MAY JUNE	21·1 20·2 19·2 19·5 19·2	78·8 76·9 74·9 74·4 73·3 72·6	83·4 81·0 77·7 77·6 76·5 76·6	76·3 74·7 73·4 72·6 71·5 70·4	80·5 79 76 77 73 72·5	80 78 76 76 72 72.5	74 73 72 70 69 66·5	77 75 74 73 71 69	94 92 90 89 88 88 5	92.5 91.5 91 90.5 90	90.5 88 84 82 81 83	88·5 87 86 85 84 84:5	99 98·5 98·5 98·5 93·25 98·25		94 93 92 92 90 5 88 5	106.5 105 103 104 103 101
JULY AUG. SEPT. OCT. NOV. DEC.	16·0 16·3 16·8 16·7 16·7	71.7 70.9 69.5 68.0 67.4 65.5	76·4 75·9 74·4 72·9 72·5 69·8	69·2 68·2 67·0 65·4 64·7 63·3	72 69·5 70 70 68 67·5	72 70 70·5 71 68·5 67·5	65 64 62:5 61:5 61	68 66 65 65 64 62·5	89·5 89·5 89·8 89·5 88·5 87·5	91 90 88·5 88 86 86	84·5 84·5 84 84·5 83 81	86 85·5 83 82 80 79	98·25 98·25 98·25 98·25 98·25 98·25		86 86 86 84.5 83 81	99 99 100 99 97 94
JAN. FEB. MAR. APR. MAY JUNE	13·7 12·3 13·8 13·0 13·1	64·3 63·9 63·7 63·6 62·8 62·1	68·1 67·1 66·6 67·4 67·8 67·7	62·4 62·1 62·1 61·5 60·1 59·1	67.5 65.5 66 66.5 65	67 65 65·5 65·5 64 66	58 59 58·5 57 55 56	61.5 61.5 61.5 61 59 59.5	87 86 84 84 83 84	86 85 85 86 85 85	80 79 76 76 75 76	78 78 77·5 78·5 77·5 78	98·25 97·75 97·75 97 97 97 97		80 78·5 77·5 76 74·5 73·5	91 87 86.5 85 83 81
JULY AUG. SEPT. OCT. NOV. DEC.	12.6 13.0 17.3 21.3 20.0	61:5 59:9 59:7 62:8 64:0 63:7	65·5 64·6 64·7 67·7 69·1 68·0	59·2 57·3 57·0 60·2 61·4 61·5	63 62 63 63 63 65.5	63 62·5 63·5 64 64 65·5	54 53 55 56.5 57.5 58.5	57·5 57 58 59 60 61·5	83 83 83 83·5 84·5 84	84 88:5 82:5 81:5 82:5 82:5	75 75 75 76·5 77 5	76.5 75.5 74.5 74.5 74.5 74.5	97 96:75 96:75 96:5 96:5 96:5		73.5 73.5 72.5 71.5 71.5 70	81·5 82 82 81·5 80 78·5
JAN. FEB. MAR. APR. MAY JUNE	19·9 19·4 18·1 16·7 17·1	63:4 63:4 63:0 61:6 60:6 58:9	69.0 68.7 69.5 69.2 68.8 66.8	61·0 60·7 59·7 57·8 56·5 55·0	64.5 67 65.5 66 65.5 59.5	64 66 65 65 64:5	58·5 59·5 57 54 52·5 52·5	61 62.5 60.5 59.5 57.5 55.5	84 83.5 83.5 81.5 81.5	83 83 83.5 83.5 83 83	77 76 74 73 72 73·5	75.5 75 76 76 76 75 75	96.25 95.75 95.75 95.75 95.75 95.75		68.5 67.5 67.5 67.5 65.5	75 72 72 71 69.5 68.5
JULY AUG. SEPT OCT. NOV. DEC.	17·0 18·2 18·0 17·7 18·1 17·3	58·8 59·9 61·4 60·8 60·8 60·8	64·9 64·5 64·6 63·6 64·0 64·8	55.7 57.6 59.7 59.3 59.1 58.7	61 59·5 59·5 56·5 56	61 60 60 57·5 57 56·5	54 57 56°5 55°5 55°5 55°5	57 58 58 56 56 56 56	80.5 80.5 81.5 81.5 81.5	81.5 81 80 80 80 80	72 72 73·5 73·5 73·5 73·5	73·5 73 72·5 71 70·5 70	95·5 95·5 95·5 95 94·75 94·75		65.5 66.5 66.5 65.5 65.5	69 69 69 68
JAN.											1		94-75		1	
		⊁ NO	RMAL S	EASONAL	CHAN	GE RE	MOVE).			* Decei	nber, 1	924.	1	* Na Co	tional In nference

≥ ,	0/	٠,
% 100	100	% 100
104	111	102.5
102	110	102
101	107	101.5
100	111	102
97 5	108	100 [.] 5
96	107	100
97	105	99 [.] 5
98	107	100
98	104 5	98.5
99	105	98.5
100	106	99
98	108	98.5
98	106	98
97	105	98
98	109	99
98	110	99
98	110	99 5
97	110	99 5
95	109 5	98 5
95	108	97 5
94	106.5	97
93	105	96.5
92	103	96.5
92	104	95.5
90 5	103	95
88 5	101	93.5
86	99	93
86	99	94
86	100	93.5
84 5	99	92.5
83	97	91
81	94	89.5
80	91	88
78·5	87	87·5
77·5	86.5	87
76	85	85·5
74·5	83	84·5
73·5	81	84·5
73.5	81.5	84·5
73.5	82	84
72.5	82	83·5
71.5	81.5	82·5
71.5	80	82
70	78.5	80
68.5 67.5 67.5 67.5 65.5 65.5	75 72 72 72 71 69.5 68.5	79 78:5 77:5 76:5 76 76
65.5 66.5 66.5 65.5 65.6	69 69 69 69 68	75°5 75°5
	tional Inc	lustrial

PRICE OF SILVER-

Average (cash) price of har silver for week ending 15th of month,-ECONOMIST, BOARD OF TRADE INDEX.—Geometric Mean of Wholesale Prices (averages for month) of 150 commodities as percentage of 1924 average.

—BOARD OF TRADE JOURNAL.

STATIST (SAUERBECK) INDICES—

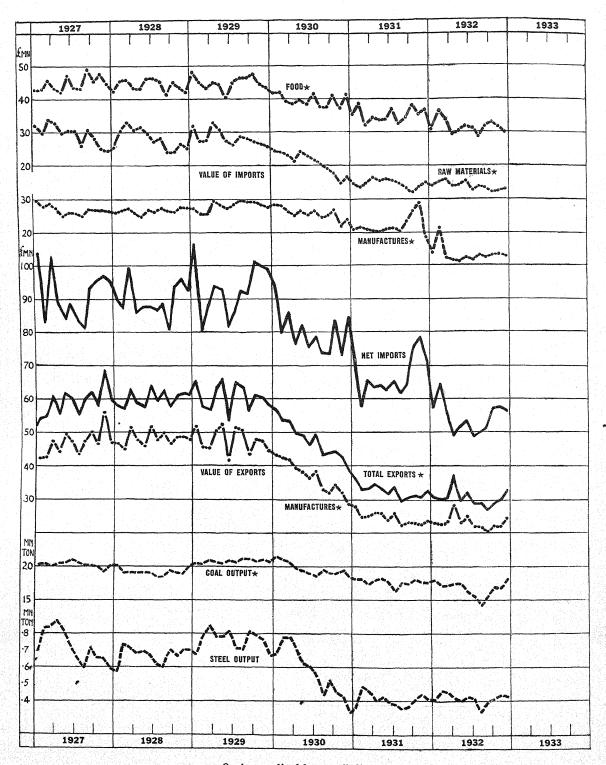
Average wholesale prices of 19 foodstuffs and 26 raw materials on last day of month, as percentage of average for 1924.—STATIST.

COST OF LIVING INDEX— Ministry of Labour's index showing movement since 1924 in cost of maintaining unchanged the standard of living prevalent in working-class households before the war. For 1st of month, but placed against previous month—e.g., reading for March 1st is shown against February—to facilitate comparison with "Statist" index. As above, for food only.

RETAIL FOOD PRICES-WAGES INDEX-

For description see Special Mem. No. 28.

TRADE AND OUTPUT.



Scale applicable to all lines.

* NORMAL SEASONAL CHANGE REMOVED.

TRADE AND OUTPUT.

	TOTAL IMPORTS (Values).										EXPORTS OF U.			K, GO	ods	(Values).		JO		SHIP- B'LD'G	
	Food, Drink and Tobacco,			aw erials.	Ma facti	nu- ires.	(inch	tal iding aneous)	TOTAL. NET IMPORTS.	Fo Drint Tobs	and	Ra Mater		Ma factu		Tot (include Miscella	ling	Coal.	Pig Iron.	Steel.	Tonnage Com-
	£Mn		£Mn		£Mn.		£Mn.		£Mn.	£Mn		£Mn.	10/15,	£Mn.	ires.	£Mn.	neous)	Tons Mn.	Tons 000	Tons	menced Tons 000
1924 Average	47:6	*	33.3	*	25.0	*	106.4	*	94·8	4.7	*	8.9	×	51.6	¥	66.8	*	21.2	520	641	263
1926 1stQr.Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	40.8	47·1 41·8 45·2 42·9	35·0 28·4 30·5 37·0	32·2 30·7 35·3 28·6	24·2 26·3	25·8 24·2 26·7 28·6	107·1 93·7 101·0 112·5	105·4 97·1 107·8 104·9	94·8 83·9 92·4 101·6	4·2 3·6 4·3 4·6	4·4 4·0 4·3 4·1	6·7 3·8 2·0 3·2	6·7 3·9 2·2 3·2	50·9 40·9 45·0 42·5	50·1 42·7 44·8 41·7	63·2 49·5 52·6 52·0	62.6 51.8 52.6 60.7	21·5 —† —	499 207 13 38	665 245 56 161	193 168 68 152
1927 1stQr.Av. 2nd ,, ,, 3rd ,, ,,	43·1 43·4 43·9 49·6	44·0 44·4 45·4 46·0	34·7 28·6 25·1 28·9	\$1:9 \$0:9 29:0 25:8	28·7 26·5 25·5 26·9	28·8 26·1 25·9 26·6	107·0 98·8 95·0 105·9	105·2 101·8 100·7 99·0	96·5 87·2 86·1 95·8	4·1 3·8 4·5 5·0	4·3 4·2 4·4 4·5	6·7 6·7 5·9 6·2	6.6 6.3 6.0	44·8 45·6 47·1 50·6	44·0 47·4 46·9 49·8	56·8 57·3 58·7 63·5	56·1 59·3 58·9 62·0	21·1 20·3 19·3 20·0	524 631 558 527	782 799 648 629	580 437 370 377
1928 1stQr.Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	44·0 43·2 42·9 47·3	44.6 44.2 44.3 43.8	32·1 28·3 23·0 28·3	29·5 30·6 26·5 25·2	26·7 26·2 26·2 26·9	26·6 25·9 26·6 26·6	103·2 98·5 93·6 103·7	101·1 101·5 98·9 9 6 ·2	92·2 87·1 85·6 94·1	4·3 3·9 4·7 5·2	4.5 4.2 4.7 4.6	6·0 5·9 5·3 6·2	5·9 5·8 5·6 6·0	49·1 46·5 48·2 49·2	47·7 48·4 48·0 48·3	60.6 57.8 59.9 62.8	59·3 60·1 60·0 61·2	20·3 18·9 17·8 19·6	524 529 475 497	672 676 636 688	342 279 245 432
1929 1stQr.Av. 2nd ,, ,,	43·9 42·1	44·9 43·2	31·5 28·2	28·9 30·4	25·7 28·6	25·8 28·2	102·0 99·7	100·4 102·5	91-9 89-6	4·0 4·5	4·2 4·9	6·9	6·2 6·8	48·4 46·3	47·5 48·0	60·4 59·2	59·7 61·2	21·6 20·3	521 592	763 786	362 428
JULY AUG SEPT OCT NOV DEC		44:8 46:3 46:3 47:8 44:5 43:4	22·9 24·7 24·2 27·3 30·0 31·2	27·1 26·6	27·4 29·5 28·4 30·2 28·2 27·8	28·1 29·6 29·1 29·1 28·3 27·8	93.6 101.0 98.4 110.3 108.2 106.4	100·1 105·7 104·4 105·5 101·4 97·3	85.6 92.0 91.6 101.1 100.0 98.6	4·7 4·5 4·8 5·4 5·7 4·9	4.8 4.6 4.7 4.7 4.7	6·9 6·0 6·5 7·1 6·9 6·2	7·1 6·5 6·9 6·8 6·7 6·0	53·2 50·8 42·2 50·3 48·6 44·6	43·2 47·9 47·2	66.5 63.0 55.1 64.6 63.1 58.4	65·1 63·4 56·3 61·2 60·5 58·1	18:9 20:3° 20:4 20:6 21:3 20:9*	607 616 620 622 589 581	708 705 811 783 763 661	} 360 } 499
1930 JAN FEB MAR APR MAY JUNE	40·0 36·7 39·6	41.7 42.0 39.3 38.7 39.8 38.1	30·1 24·0 24·1 20·7 23·1 20·4	23·2 22·1 24·3	28.1	28.2 28.0 26.3 24.9 26.6 25.2	101:8 88:2 93:4 83:9 91:0 83:4	95·2 95·3 90·0 96·7 91· 3 87·0	93·7 79·6 85·8 76·1 82·0 75·6	4.6 3.7 4.0 3.6 3.8 3.2	4·7 4·0 4·3 4·0 4·6	6·9 5·8 6·0 5·4 5·8 4·7	6.8 6.1 5.7 5.4 5.2 5.0	44·7 41·2 42·5 36·7 39·8 33·8	42.0 42.0 39.0 38.2	58·3 51·9 53·9 46·9 51·0 42·8	56.7 53.5 53.4 49.6 49.0 46.1	22·1 22·1 21·5 19·9° 19·3 18·0°	587 607 601 578 555 526	679 776 773 696 621 600	} 427 } 230
JULY AUG SEPT OCT DEC	37·2 36·6	41.5 37.6 37.6 41.2 37.2 41.4	19·1 17·5 16·5 18·1 16·5 20·6	20·3 19·3 18·0 14·6	26·0 24·2 24·6 27·7 21·6 23·8	26.5 24.3 25.2 26.8 21.7 23.8	85·2 79·9 78·6 90·9 79·4 89·6	90·6 83·0 83·0 87·0 74·2 82·7	78·6 73·6 73·2 83·7 72·6 84·4	4·4 4·0 4·2 4·4 4·8 3·5	4·5 4·1 4·1 3·8 4·0 3·4	5·2 4·4 5·0 5·3 4·7 4·7	5·3 4·7 5·3 5·1 4·5 4·6	39·7 33·1 32·0 35·9 32·7 27·6	32·9 34·2 31·8	50.7 42.8 42.7 46.9 44.1 38.5	49·6 43·8 43·8 44·4 42·2 39·0	16·9 18·6° 18·2 18·7 19·8 18·7*	439 376 397 375 358 317	547 441 532 451 424 322	} 161 } 132
1931 JAN FEB MAR APR MAY JUNE	30·0 32·5 32·5 33·3	33·8 32·0 34·2 33·5	17:9 13:3 15:1 15:5 14:6 14:1	13·4 14·5 16·6 15·3	20·4 19·5 22·3 20·9 21·0 20·2	21·3 20·8 20·3 20·1	75·5 63·7 70·6 70·0 69·6 68·6	71.5 69.4 68.0 72.2 69.6 71.3	69·5 57·8 65·2 63·4 63·9 62·6	3·7 2·8 3·0 2·9 2·8 2·6	3.7 3.0 3.2 3.2 2.9	3.7 3.8 4.1 4.1 4.0 4.0	3.7 4.0 3.9 4.1 3.6 4.2	28·7 24·0 25·6 24·3 26·0 21.7	24.7 25.9 25.6	37.6 31.8 34.0 32.5 33.9 29.4	36.6 32.8 33.1 34.4 33.2 31.6	18·4 19·2 18·2 18·2° 18·2 16·9	305 320 323 302 313 302	361 486 458 397 425 393	
JULY AUG SEPT OCT NOV DEC	31.8 . 33.6 . 40.8 . 38.6	32·3 34·5 38·1	13.6 12.5 11.2 11.9 15.3 18.8	14.6 13.1 11.8 13.6	20·7 20·1 22·6 27·2 28·7 18·2	20·2 23·1 26·3	70·2 65·3 68·3 80·7 83·2 77·0	74.6 67.9 71.6 77.0 78.4 70.8	65·2 61·4 64·5 75·4 78·3 71·5	2·7 2·6 2·7 3·4 3·4 2·9	2.8 2.7 2.6 2.9 2.9 2.8	3·8 3·4 3·7 4·3 4·1 4·0	4.0 3·7 3·9 4·1 3·9 3·9	26·5 22·0 22·2 24·0 22·9 22·7	21.9 22.8 22.8 22.2	34·3 29·1 29·8 32·8 31·9 32·1	33·8 29·4 30·5 30·9 30·5 32·4	14·9 16·9 16·8 17·9 18·1 17·9	286 249 232 257 277 299	349 367 411 439	} 10
JAN FEB MAR APR MAY JUNE	33.6 30.9 27.5 29.9	36.6 30.4 29.0 30.0	15.4	15.0	13·3 20·1 13·0	13·4 21·2 12·2 11·5 11·1 12·2	62:3 70:2 61:1 53:5	58·4 73·9 59·2 55·7 56·0 60·0	57·0 64·7 55·7 48·8 51·3 53·3	2·8 2·8 2·7 2·9 2·6 2·3	2.9 2.9 2.8 3.7 2.7 2.5	3·6 3·5 3·5 4·0 3·6 3·6	3.6 3.6 3.3 4.0 3.2 3.9	26.8	22.6 22.4 23.3 28.5 22.8 24.7	30.2	30·4 30·0 30·2 36·8 29·5 32·0	18·19 17·7 17·39	296	460 443 406 399	2
JULY AUG SEPT OCT NOV DEC	29·3 28·2 30·6 35·1	31.0 28.6 31.4	10.8 11.7 11.9 11.9	3 12·3 1 13.6	11·4 13·1 12·1 13·5 13·2	11·7 13·1	51·9 53·3 54·3 60·8 61·6	55.4 55.6 57.3 58.0 57.2 55.5	48.6 49.8 51.4 57.1 57.5 56.5	2·3 2·6 2·5 2·9 3·2 2·8	2·4 2·7 2·4 2·5 2·7	3·5 3·4 3·2 3·9 4·1 3·9	3.6 3.7 3.4 3.7 3.9 3.8	22.4 21.7 19.8 22.7 22.8	21.7 21.5 20.3 21.6 21.8	29·3 28·6 26·2 30·4 31·1	28.8 28.8 26.8 28.7 29.7	14·4 13·6 15·0 16·8 17·0	264 234 243 243 250 250	411 331 394 412 434	

[†] Trade Dispute.

* NORMAL SEASONAL CHANGE REMOVED.

IMPORTS & EXPORTS—
Declared values of imports (c.i.f.) into U.K., and exports (f.o.b.) of U.K. produce and manufacture. Net imports—Total imports less exports of imported goods.—MONTHLY ACCOUNTS OF TRADE & NAVIGATION.

Total for 4 weeks ending approximately at end of month.—BOARD OF TRADE JOURNAL.

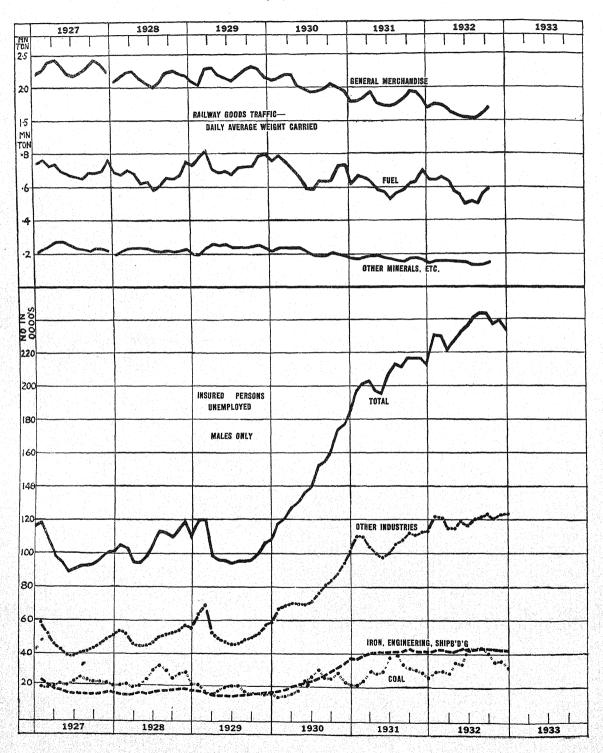
Output for standard four-week month, based upon monthly figures issued by the NATIONAL FEDERATION OF INDICATED INDIC

[!] Total for Qr.

^{° 4} Weeks, excluding holiday week.

^{*} Excludes Christmas week, but includes New Year.

TRANSPORT, UNEMPLOYMENT.



UNEMPLOYMENT.

		SHIPPING.			RAIL	Ways								EMPLO h Irelan		**************************************	
	Tonnage (with C		Index of	Stan	Freight lard Ga	uge Ra	ilways.				Male	-				Fema	
	Entered British	Cleared	Time Charter Rates, Freight	General.	Weight	Other Minerals	Re- ceipts. All Goods.	g Total.	Coal.	Iron & Steel.	Engineering	Shipbuilding	Building and Construction	Cotton and Wool,	§ Other Industries.	Total.	Cotton and Wool.
1924 Average	461 ×	544 🖈	100 100	544		551	£ Mn 8-89	941	72	52	116	78	99	35	344	263	62
1926 1st Qr. Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	422 <i>477</i> 453 <i>453</i> 644 <i>596</i> 618 <i>608</i>	507 535 364 372 343 343 352 364	91 79 — 78 103 98 138 138	546 429 445 496	1778 667 336 1056	544 376 331 365	9·10 5·81 5·64 7·92	1003 1186 1314 1259	119 109 108 111	50 108 132 108	97 121 135 134	88 90 96 100	117 94 109 139	31 59 69 49	348 454 511 460	243 335 376 307	49 106 130 86
1927 1st Qr. Av 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	447 523 511 503 542 501 503 494	498 525 536 540 566 546 517 507	112 104 113 95 102 87 102 93	543 532 536 550	1605 1595	542 598 534 524	9·42 9·00 9·07 9·11	1082 913 929 990	201 220 243 217	41 39 41 49	97 75 67 69	73 54 48 46	134 82 92 147	29 24 29 31	356 296 295 303	236 175 194 196	46 39 48 49
1928 1st Qr. Av 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	449 502 516 506 531 491 516 507	502 523 535 539 564 544 545 534	93 84 90 83 93 86 113 96	521 496 501 530	1478 1460	506 536 505 5 16	8·95 8·34 8·37 9·84	1004 992 1108 1142	208 250 290 251	44 45 50 45	67 67 70 71	44 51 59 65	152 109 119 154	27 30 42 37	323 312 346 358	201 197 261 255	43 54 81 66
1929 1st Qr. Av. 2nd ,, ,,	438 <i>495</i> 530 <i>523</i>	518 <i>545</i> 576 <i>576</i>	110 93 107 85	495 514		478 581	8·89 8·76	1122 953	176 192	40 38	71 63	53 46	200 107	36 38	377 324	253 221	6 0 68
JULY AUG SEPT OCT, NOV DEC	588 537 589 560 583 537 513 523	618 608 648 622 596 566 622 591 586 572 517 527	109 83 116 83 119 84 104 77 96 77 88 70	524 513 523 579 536 47	1688 1660 1811 1845	606 573	9·05 8·82 8·88 9·69 9·33 8·24	947 951 961 1005 1061 1075	202 173 162 165 153 156	41 40 39 41 47 45	61 66 68 68 70 70	47 49 51 51 49 48	103 108 121 143 172 181	40 41 36 36 40 42	314 331 335 339 356 359	231 247 243 249 265 269	78 78 69 69 69 73
1930 JAN FEB MAR APRIL MAY JUNE	. 427 <i>538</i> . 484 <i>518</i> . 498 <i>630</i> . 579 <i>554</i>	581 603 496 559 533 535 525 551 598 574 534 541	83 66 84 64 84 61 86 66 86 58 66 62	52° 466 511 484 500 430	1743 1755 1563 1621	503 540 506 465	9·13 8·41 8·92 8·19 8·65 7·27	1173 1209 1267 1301 1357 1396	138 142 155 177 235 254	48 47 55 64 63 63	79 85 91 98 100 107	49 50 55 55 58 62	197 195 177 160 147 147	56 63 67 71 85 91	411 425 456 465 461 469	348 374 427 460 499 515	104 121 135 151 185 202
JULY AUG SEPT 9CT NOV DEC	. 564 515 . 588 559 . 557 513 . 496 506	571 <i>561</i> 589 <i>565</i> 579 <i>550</i> 581 <i>552</i> 511 <i>498</i> 489 <i>498</i>	71 61 71 70 79 68 — 62 — 68 64 71	48: 44: 47: 51: 44: 43:	1434 1529 1603 1640	413 456 512 439	8·20 7·54 8·17 8·76 8·18 8 11	1519 1546 1605 1735 1771 1847	301 252 246 282 225 210	71 80 83 91 98 109	114 125 137 151 158 173	65 70 76 82 86 92	160 166 178 200 232 246	102 105 103 96 96 115	499 532 552 581 610 647	551 573 584 584 598 653	213 217 207 197 192 219
1931 JAN FEB MAR APRIL MAY JUNE	. 401 505 . 478 512 . 459 489 . 511 489	469 487 423 477 466 467 465 489 504 484 507 513	64 70 65 59 66 54 67 56 70 56 64	43 39 44 42 39 41	5 1471 5 1571 7 1430 6 1324	367 417 401 419	7·99 7·37 8·01 7·49 7·05 7·38	1972 2017 2028 1968 1957 2068	208 239 292 278 288 377	99 99 102 101 100 101	178 187 192 194 196 199	95 101 107 108 110 110	288 274 247 220 207 214	112 104 90 93 92 100	697 714 701 683 677 685	691 380 638 625 621 639	211 202 181 184 185 202
JULY AUG. SEPT. OCT. NOV. DEC.	. 568 <i>519</i> . 534 <i>508</i> . 522 <i>480</i> 498 <i>508</i>	536 527 502 482 502 477 538 511 460 449 460 469	58 62 55 63 55 62 77 73 71 74 71 72		5 1271 0 1399 9 1531 5 1459	350 366 415 394	7·42 6·87 7·63 8·06 7·53 7·64	2128 2118 2173 2168 2167 2132	328 316 302 283	97 102 105 95 97 96	202 203 210 205 200 197	111 114 113 115 117 117	235 245 264 302 328 342		705 722 738 726 721 713	679 695 707 625 568 538	213 219 222 161 132 121
J932 JAN. FEB. MAR. APRIL MAY JUNE	423 456 465 565 413 442 435 468	454 471 410 446 428 429 446 469 426 409 465 471	51 62 51 65 51 69 71 69 71 66 — 58	38 36 35 34 34	6† 1412 4 1408 6 1383 9 1321 0 1208 3 1222	2† 316* 3 338 3 326 3 328 3 320 2 322	6:90 6:64 6:44 6:04 6:08	2304 2300 2211 2270 2323 2358	294 281 344 337	100 101 100 101 107 100	206 206 201 204 211 207	117 116 114 113 115 114	384 381 349 332 326 327	71 66 71 96	743 774	551 509 449 457 499 485	
JULY AUG. SEPT OCT. NOV. DEC	513 469 491 467 483 446 435 444	480 <i>472</i> 450 <i>432</i> 477 <i>453</i> 435 <i>413</i> 441 <i>430</i> 429 <i>437</i>	- 56 45 59 55 64 61 63 58 65 62 67	33 32 33 35	6 1101 1 1065 7 1100	266 278 2 284	5.81 5.47 5.73 6.14 6.38	2416 2439 2437 2373 2398 2336	439 404 355 355	102 103 99 100 98 94	212 212 216 215 213 209	114	392	95 93 70 2 67	770 771 757 768	437	153 138 104 100

‡ Excluding any disqualified for benefit by trade dispute.

★ NORMAL SEASONAL CHANGE REMOVED.

†4 Weeks only, after 1931, ... 13 returns for year. * NORMAL SE

§ Excludes Commerce, etc.

TRANSPORT:
SHIPPING—ENTERED
SHIPPING FREIGHTS—
RAILWAY TRAFFIC—
WEIGHT
RECEIPTS

UNEMPLOYMENT— INSURED PERSONS— Tonnage of British and Foreign vessels entering and leaving British ports with cargoes during month.—BOARD OF TRADE & NAVIGATION.

Chamber of Shipping index numbers as published by "The Statist."—PREPARED BY DR. ISSERLIS.

Tonnage of goods carried on the Rallways of Great Britain during the month, excluding free-hauled. Monthly Receipts for goods traffic, excluding cost of collection and delivery till January, 1923, then excluding receipts for collection and delivery.—MINISTRY OF TRANSPORT.

Number of books lodged at Labour Exchange on or about 25th of month.

MINISTAY OF LABOUR GAZETTE,

UNITED STATES

For description of series see Bulletin, April 23rd, 1932, page 126.

	F.R. B	anks	F.R.Me	mber E	anks	Bank I	Debits		IN	r. RA	TES		st'l	TRA	DE	PR	ODU	CTIO	N_	rp.	-	1
	Discounts & Re-discounts	Acceptances & Securities	Demand Deposits	Loans & Discounts	Investments	New York City	Outside New York	Gold Move- ments	New York F.R. Bank	Call	Prime Comm'l Paper	New Securities	DowJones Ind Shares Index	Exports of U.S. Produce	General Imports	Industrial Index	Automobiles	Pig-Iron	Steel Ingots	S U.S. Steel Corp. S Unfilled Orders	Building Contracts Awarded	Freight Car Loadings
	Mn			Mn. \$		10 M		Mn. \$	%	%		Mn.\$	%	Mn		_%_	000	0000			Mn. \$	0000
1929 1st Qr. Av. 2nd Qr. Av. 3rd Qr. Av. 4th Qr. Av.	906 979 1036 880	2578 299 298 623	3 1331 1311 1323 1438	1636 1652 1715 1809	5 600 575 547 556	6 5214 4710 4953 5226	7 2692 2658 2803 2920	8 32·5 25·6 23·6 -23·4	9 5·0 5·0 5·7 5·2	7.74 8.50 8.65 5.57	11 5·43 5·93 6·05 5·55	12 1060 1044 1150 612	282 285 324 243	14 466 393 400 459	15 374 388 355 346	120 125 122 108	17 484 591 472 206	18 345 376 368 320	19 463 505 477 3 6 5	20 422 433 388 431	21 417 587 529 388	405 449 477 430
1st Qr. Av 2nd Qr. Av 3rd Qr. Av 4th Qr. Av 1931	384 243 210 252	783 740 761 824	1307 1357 1375 1391	1667 1692 1693 1649	561 593 636 674	3553 3791 2734 2742	2407 2447 2180 2217	39·8 34·4 - 12·2 31·4	2·5 2·5 2·5 2·03	4·22 3·25 2·20 2·08	4·57 3·70 3·05 2·93	755 970 456 374	242 242 211 167	370 310 288 293	298 281 222 220	107 105 91 84	333 399 217 149	297 312 248 190	406 387 297 2 3 2	451 413 371 369	366 514 349 280	376 398 399 358
JAN FEB MARCH APRIL MAY JUNE	. 163	853 705 727 773 743 731	1368 1361 1375 1366 1361 1369	1575 1546 1538 1499 1473 1469	684 718 755 790 781 779	2456 2095 2759 2682 2507 2589	2170 1708 1942 1962 1886 1941	34·4 16·1 25·6 49·5 49·6 63·8	2.0 2.0 2.0 2.0 1.5 1.5	1.57 1.50 1.55 1.52 1.45 1.50	2·76 2·62 2·55 2·38 2·20 2·02	649 222 699 590 426 402	154 165 166 148 130 126	246 221 231 210 199 183	183 175 210 186 180 174	82 87 89 90 89 83	172 220 276 337 317 251	171 171 203 202 199 164	246 250 299 272 251 208	413 397 400 390 362 348	228 235 370 337 306 332	349 284 294 299 374 299
JULY AUGUST. SEPT OCT NOV DEC	. 695	753 847 995 1425 1287 1117	1347 1324 1323 1245 1220 1187	1449 1440 1419 1352 1335 1310	781 766 792 770 751 743	2101 1750 2007 2068 1446 1923	1844 1653 1663 1813 1461 1711	19.5 57.5 20.6 -337.7 89.4 56.9	1.5 1.5 1.5 3.5 3.5 3.5	1.50 1.50 1.50 2.10 2.50 2.63	2·02 1·96 2·00 2·98 3·75 3·75	271 127 312 45 129 119	130 127 108 93 95 74	177 161 177 201 190 181	175 167 170 169 150 153	80 78 77 75 73 68	218 187 141 80 69 122	146 128 117 117 110 98	189 172 155 159 159 130	340 317 314 312 293 274	286 233 251 242 151 137	375 291 381 262 228
JAN FEB MARCH APRIL MAY JUNE		980 894 914 1066 1454 1747	1145 1100 1094 1114 1110 1093	1286 1259 1221 1188 1163 1126	714 700 714 715 738 749	1768 1438 1616 1556 1291 1420	1590 1287 1373 1437 1250 1291	-75.0 -90.6 -26.7 -30.5 -195.5 -207.7	3·5 3·0 3·0 3·0 3·0	2·74 2·50 2·50 2·50 2·50 2·50	3·75 3·72 3·50 3·30 2·96 2·64	194 94 190 142 123 142	72 73 74 57 49 43	147 151 152 132 129 110	135 131 131 127 112 111	71 71 68 64 61 59	119 117 119 148 184 183	97 96 97 85 78 63	146 146 141 124 111 90	265 255 247 233 218 203	85 89 112 122 146 113	227 225 229 277 209 197*
JULY AUGUST. SEPT OCT NOV DEC		1878 1887 1882 1885 1885	1075 1098 1123 1146 1174 1176	1100 1080 1071 1044 1041 1030	770 774 820 858 859 851	1273 1346 1416 1294 981	1251 1176 1177 1235 1094	- 7·1 + 6·1 +27·9 +20·6 +21·7 +101·9	15.00	2:06 2:00 2:00 1:38 1:0 1:0	2:33 2:08 1:99 1:72 1:54 1:39	154 170 141 122 75 158	42 61 66 58 57 54	104 107 130 151 137	79 91 98 106 104 97	56 59 68 68 65	111 90 84 49 60 110	57 53 59 64 63 55	79 83 98 107 101 84	197 197 199 200 197 197	129 134 128 108 105 81	242 207 225 316 220 205‡
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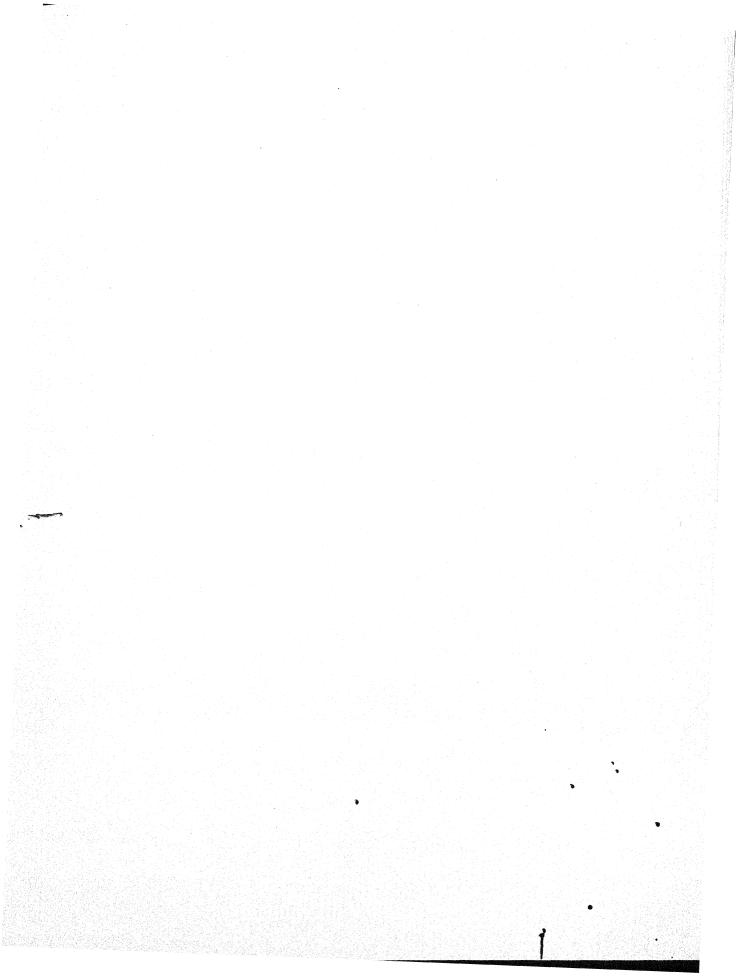
Latest figures are preliminary.

† 1st-14th.

*5 weeks.

‡ Provisional.

For prices see page 19.



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List of Special Memoranda issued to members of the Royal Economic Society by arrangement with the London and Cambridge Economic Service.

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- No. 35. Report on Current Economic Conditions in Europe. February, 1932.
- No. 39. Report on Current Economic Conditions. January, 1933.

Kolenganoun

ROYAL ECONOMIC SOCIETY

ISSUED BY ARRANGEMENT WITH THE LONDON AND CAMBRIDGE ECONOMIC SERVICE

MEMORANDUM No. 40

REPORT ON CURRENT ECONOMIC CONDITIONS IN EUROPE

February, 1933

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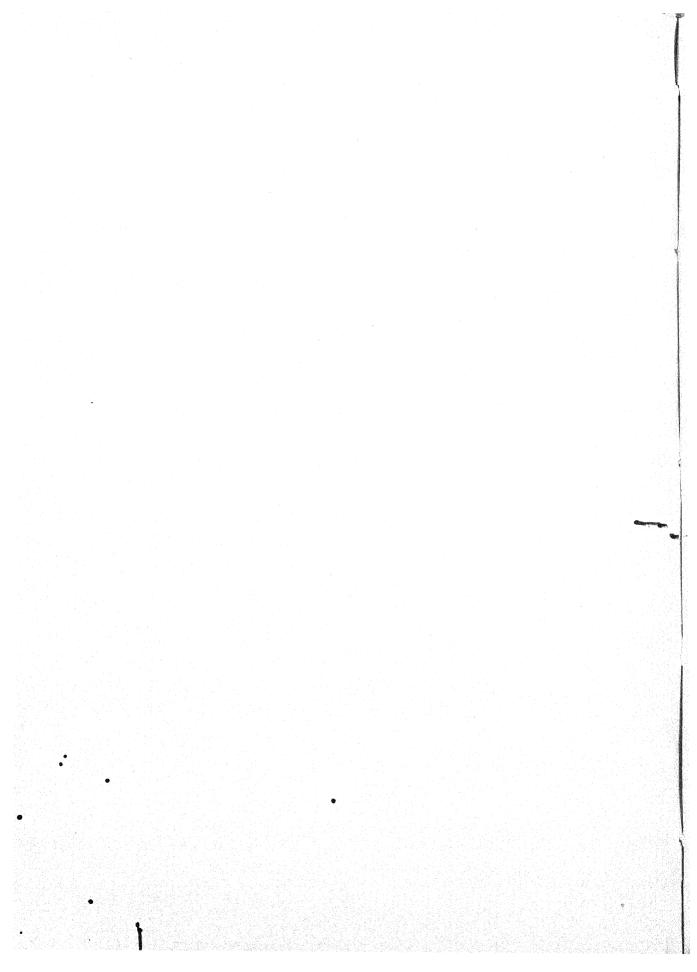


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UNITED KINGDOM.

Additional Figures published since Jan. 22nd, 1933.

STOCKS AND SHARES.	End Dec. End Jan.	RAILWAYS. 4 weeks to
Fixed Interest—Price , Yield Industrials Sensitive Index 1st half-month 2nd , , ,	122.8% 123.1% 81.9% 81.7% 94% 95% Dec. Jan. -1.0% -1.4% +4.2% +3.9%	Weight carried— Nov. 5th. Dec. 3rd. Merchandise (A) Tons 3,726,000 Not Fuel , 13,034,000 Not Minerals & Merchandise (B) ,, 3,099,000 Available Goods Receipts £6,376,000
NEW CAPITAL ISSUES.	January	EXCHANGES.
For Great Britain For Abroad	£7,875,000 £335,000	Week ending Paris Milan Berlin Amsterdam Jan. 28th 86·70 66·23 14·22 8·42 Feb. 4th 86·93 66·42 14·28 8·45
PROVINCIAL CLEARINGS.	January	Prague Zurich Stockholm New York
As in Bulletin	£100,400,000	Jan. 28th 114.23 17.50 18.40 3.385 Feb. 4th 114.56 17.55 18.46 3.395
MONEY.	Week ending	
Three Months Rate	34% Feb. 4th 77% ,, 76% ,, 2% on June 30th, 1932	B.Aires Rio de J. Bombay H. Kong Kobe Jan. 28th 41·79 5·38 18·16 15·74 14·92 Feb. 4th 41·75 5·38 18·16 15·58 14·93 UNEMPLOYMENT.
PRICES.		
Silver Bar—cash per oz. 17.0d.	Week ending Feb. 4th	Nos. on Live Register. 000's. Great Britain. Males. Females. Total.
"Times" Index (Wholesale) Food Materials Total	Dec. 30th Jan. 31st 97.4% 99.2% 92.8% 92.0% 94.5% 94.7%	Oct. 24th 2317 430 2747 Nov. 21st 2348 452 2800 Dec. 19th 2291 432 2723 Jan. 23rd 2414 489 2903

FRANCE.

Information communicated by M. LUCIEN MARCH, Directeur Honoraire de la Statistique Générale de la France.

REVIEW OF 1932.

January 26th, 1933.

URING the past year the crisis was particularly severe, but it would seem from certain indications that the worst has been

The movement of wholesale prices of merchandise is the index which should be set in the forefront. The index of prices of raw materials, which stood at 362% of the 1914 level in January, 1932, was at 355% in the early part of January, 1933, so that the change was insignificant, whereas from 1931 to 1932 the fall had been nearly 20% and from 1930 to 1931 25%. Thus the movement seems to have slackened enough for there to be no further fear of a new collapse.

France]

Another important indicator is the short money rate. Whilst the French official discount rate is unchanged, the market rate fell considerably in 1932 compared with the year before. In several other countries, England, Germany and Italy for instance, discount rates were considerably lower at the end than at the beginning of the year; the general level of money rates is therefore lower.

Stock exchange securities fluctuated considerably in 1932. In France bonds, after falling greatly in the first half of the year, then recovered, but in the middle of January, 1933, were still 4% below the average for January, 1932. Thus the yield on long-term investments has risen, while that on short-term has fallen. The ratio of the latter to the former is now apparently at its minimum, whereas it was at its

maximum in the summer of 1929.

The movement in variable dividend shares has not corresponded entirely with that of bonds. At the end of 1931 prices stood at a very low level; they rose early in 1932, but fell again at the beginning of the summer, though not in all cases below the December level. Under the influence of the stimulus which then became apparent, especially in the United States, some improvement occurred as in other countries until the middle of September. The movement was not sustained and a fall followed, but there was a rise toward the end of the year. January the general index number for ordinary shares was nearly 10% higher than the average for December, 1931. This is a sign that conditions are considered a little more satisfactory than a year ago.

In France as in other countries, there seems to be a little more activity in certain industries, especially textiles (which were the first to be affected as early as 1928), in metals and in coalmining. External trade also tends to be a little more active. The sum total of the signs mentioned would indicate that a coming recovery might be hoped for if it were not for increased unemployment, coupled, at least in France, with a renewed fall in exports, and a persistent increase in bankruptcies. But a winter increase in unemployment is normal, and France, where the crisis began somewhat later than in other countries, may see it prolonged rather

longer than elsewhere.

There is, however, another reason for the present state of uncertainty, namely the difficulty of balancing the budget, and the fact that for the first time, as stated by the president of the Senate, Parliament did not deal with the

matter before the beginning of the financial year. Measures intended to meet the budgetary deficit, which a commission of inquiry estimated to amount to over 10 Md. francs, after the utilisation of resources voted last summer, were not presented to Parliament until the second half of January. Consequently it seems that a final vote is unlikely for some months and that current liabilities can only be met by monthly votes on account.

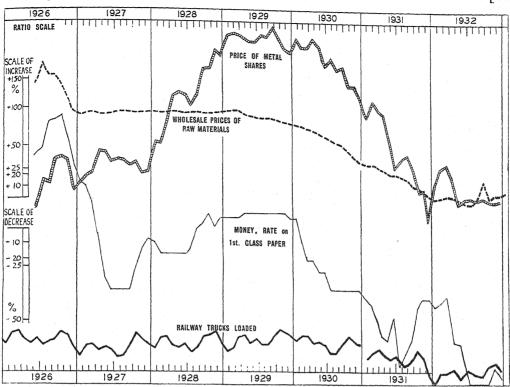
This situation, at a time when the end of the crisis is still doubtful, when exports continue to decline and an outflow of capital has begun, is not such as to inspire the confidence of holders In addition to some hundred of securities. milliard francs on deposit at the banks or at the state deposit and consignment bank, there exists a large mass of hoarded bank notes. Referring to recent years, there has been little increase in the volume of notes of under 1,000 francs denomination, but in those of 1,000 francs and over an increase of 12 Md. francs which can hardly be accounted for in any way except Idle capital abounds, not being hoarding. utilised owing to lack of confidence in a forthcoming recovery.

Independent of budgeting difficulties, the outflow of gold which has occurred for some months shows that the deficit in the balance of payments has necessitated settlement in specie. This deficit was inevitable, for the visible trade balance necessitated considerable payments abroad, while invisible exports declined very sharply, and dividends from abroad likewise diminished.

Changes in the Bank of France's reserves, as shown in the table below, indicate that the gold reserve has increased since the beginning of the year only in consequence of the repatriation of capital from abroad. Since October there has been no increase, but instead a reduction of gold stocks which coincides with a slight fall in the exchange value of the franc.

BANK OF FRANCE. Milliard Francs.

	lan M	19	32		1933
1931-32	Jan. 15th	Apr. 15th	July 15th	Oct. 14th	Jan. 20th
Gold	69.8	77:1	82.4	82.7	82.3
Foreign Assets—Bills and Sight Deposits	19.6	12.3	6.0	4.7	4.2
Discounts (commercial)	6·2 2·9	3·9 2·8	3·1 2·8	3.0	2.8
Sinking Fund Bonds	6·9 84·0	6·9 81·9	6.6 81.5	6·6 81·1	6·7 83·0
Deposits, Treasury and	700				
Sinking Fund ,, Private	6·5 21·3	3·1 24·3	3·5 22·7	3·0 22·4	2·4 19·9
Reserve Ratio (%)	62.3	70.3	76.3	77.4	78.0



The increase in the note circulation and the reduction in current deposits are a consequence of the needs of the treasury which has reduced its account and placed bonds up to the legal limit. The reduction in the discount portfolio is due partly to slackness in business and partly to the still relatively high rate of discount as compared with the open market. The Bank of France rate which had been reduced to 2% in 1931, stood at $2\frac{1}{2}\%$ throughout 1932, whilst the rate outside the bank fell from 1.9% in 1931 to 1.0% in 1932.

On the stock market the contango rate has been very low throughout the year, with some

INDICES OF SHARE PRICES. (January, 1931, as 100.)

1931–33		3% Rentes.	Railways,	Deposit Banks.	Commercial Banks.	Land Banks.	Metals.	Electricity.	Textiles.
April		104	103	101	108	106	103	98	86 °
July	•••	100	105	90	95	106	76	89	73
October	•••	98	98	74	62	101	59	76	50
January		91	95	74	60	104	63	79	48
April		89	96	76	60	98	67	77	49
July		90	98	70	60	72	58	72	40
October		96	101	71	60	79	59	69	41
January		90	95	72	62	84	61	68*	44*

* 15th.

fluctuations. The general movement of quotations has already been described. The table below shows that the recovery in bonds last summer has not persisted, whilst among variable dividend shares the improvement was held best by banks and metals. Electricity has remained indecisive but the movement in textiles was accentuated at the beginning of the present year.

Although dealings are still rather limited, activity is a little greater than a year ago. Likewise Clearing House returns were greater at the end of 1932 than at the end of the previous year.

In 1932 the total of external trade was 30% less in value and 25% in weight than the previous year. The value of imports was 10 Md. fr. in excess of exports; in 1931 the excess was slightly greater.

On account of the fall in prices, food imports were about 2 Md. fr. less than in 1931; there was little change in the weight. Imports of manufactures were also much less. Imports of raw materials were 30% lower in value and 21% in weight, and the reduction applied to nearly all categories. Exports of foodstuffs and raw materials have both diminished considerably in value and weight. But the greatest fall was in manufactures, amounting to 30% in value and

	S.	rocks	& SH	ARES	3.	rns.	EXCHA	NGE	ВА	NK O	F FRA	NCE.			WHOI	ESAI	Œ.		RET	AIL
	Index	Nos. o		es of	Issues.	e Returns	Mont		tion.	sum of		++				In	dex No for)s.	Index Pa fo	ris)
	% 3 % Rentes.	% 8% Railway Debentures.	8 10 Metal Shares	% 5 Financial Shares.	K H H H H H H H H H H H H H H H H H H H	TO Clearing House	teo → Sterling.	#5 → Dollar.	H S Note Circulation.	% Paris.	% Provinces.	H Private Deposits.	% Discount Rate.	per kilo 000f	per kilo f	% 45 items.	% Food only.	% Raw Materials.	% 13 items.	% Cost of Living.
Pre-War. 1904-13.	97.5	97.0	114	117	184 1907-18	12	25.2	5.17	50	100	100	647	3.5	3.44	99	100 Ye	100 ar 19	100 13	100*	100
924 Av 1926	54.2	62.0	155	170	658	306	85.0	19.3	399	616	937	2135		12.82	434	486	450	520	380	369
st Qr.Av	50·3 47·4 49·3 50·4	50·0 48·8 48·7 53·7	113 114 148 155	179 172 243 225	327 649 237 433	409 476 481 461	132·3 154·9 180·4 143·2	27·2 31·9 37·1 29·5	513 527 554 540	794 897 881 938	1170 1314 1425 1527	2898 2742 3176 3991	7:5	18·77 22·70 25·53 19·59	616 735 802 575	631 690 795 684	545 613 708 658	707 757 872 713	491 523 584 617	451 488 539 548
1927 Lst Qr. Av 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	59.4	61·3 69·0 68·1 68·8	145 170 161 153	236 273 273 263	413	284 256 227 258	124·0 124·0	25·5 25·5 25·52 25·44		695 805 650 793	1270 1315 1143 1337	4911 8542 11808 10622	5.0	16·78 16·98 17·11 17·48	498 505 492 508	629 627 610 593	629 627 579 545	635 632 642 637	586 583 543 514	524 528 507 498
1st Qr. A 2nd ,, ,, 3rd ,, ,, 4th ,, ,	72·7	80.4	278	481 473	777 726	276 366 364 378	124.06	25.40	596 608	839 1219 816 941	1297 1409 1487 1545	8754 7953 7229 9997	,,	17·08 16·98 17·01 17·08	505 518 505 510	611 625 618 620	582 612 600 600	639 641 639 641	525 545 544 582	50° 51° 51° 53°
1st Qr. A 2nd ,, , 3rd ,, , 4th ,, ,	, 75·6	77.5	400	430 2 41	1240 7 1028	412	124.1	25·59 8 25·58	633	960 884 840 948	1458 1533 1494 1652	12025 12272 11888 11956	?? ?? ??		495 478 463 438	634 618 601 581	619 615 585 564	651 626 618 599	603 622 605 615	54 55 55 56
JAN FEB MAR APRII MAY JUNE	89· 89· 89·	9 87·7 8 83·8 8 86·3 5 86·3	7 37 3 37 5 40 3 38	9 39 8 39 1 40 2 39	2 3261 1 2354 6 872 1 1210	439 469 2 47 3 51	3 124·1 0 124·2 6 124·1 1 123·9	7 25·5· 7 25·5· 2 25·5· 0 25·4	691 700 712 711	904 908 952 914 1074 1029	1500	10126 10669 10606 9467 10150 10215	3 2.''	5 ,.	410 395 375 380 370 305	561 562 551 546 540 531	536 540 534 534 533 528	587 585 570 561 549 537	609 598 591 586 590 593	}56 }57
JULY AUG. SEPT OCT. NOV. DEC.	90° 91° 91° 98°	5 91° 5 90° 4 88° 7 87°	6 32 1 32 9 28 9 28	2 34 8 34 6 32 6 31	8 88' 9 135 2 365 6 113	7 43 1 48 0 48 4 38	2 123·8 6 123·7 0 123·8 0 123·6	1 25·4 8 25·4 5 25.4 5 25·4	2 727 6 729 9 740 6 747	947 754 816 925 822 908	1474 1438 1606 1681	14078 15785	,	,, ,, ,,	305 310 325 320 315 290	536 530 522 507 492 485	553 553 548 536 526 535	527 516 506 488 468 449	601 626 637 637 647 649	}59 }59
JAN. FEB. MAR. APR. MAY JUNE	88 90 91 91	1 88· 7 88· 3 89· 0 89·	7 25 9 24 5 23 4 19	5 31 0 30 51 28 01 27	0 422 0 130 7 116 7 145	8 39 4 41 3 44 7 43	4 123.9 1 124.1 1 124.2 0 124.3	25·5 25·5 29 25·5 25·5 25·5	1 772 5 778 7 787 7 773	843 830 826 820 828 860	1414 1260 1480 1373	19733 20122 19510 20217	, , , ,	, ,, , ,, , ,,	260 240 240 255 255 245	482 480 480 483 468 466	543 540 548 559 545 539	437 437 429 425 410 410		}5:
JULY AUG. SEPT OCT. NOV. DEC.	90 91 85 86 80	2 93· 3 91· 5 85· 6 87·	1 17 0 18 6 12 1 13	71 25 54 23 29 17 52 18	57 35 66 34 71 354 84 63	1 32 1 35 5 38 1 25	4 123.9 2 115.4 5 99.0 3 94.1	25·5 12 25·4 27 25·3	1 784 7 782 9 818 1 823	1096 1012 1064	1316 1467 1556 1343	25086 26184 26808 28823	3 2	; ;; 5 ,;	255 250 255 270 320 270	407	512 492 469 465	377 371 363	595 588 571 555	>5
JAN FEB. MAR. APRII MAY JUNE	80 80 78 75	3 82 9 82 5 82 1 81	9 15 9 15 7 14 6 12	54 20 59 20 53 19 20 16)7 81)1 34)2 170)4 56	5 25 1 31 5 29 0 28	8 87.8 6 92.3 8 95.3 1 93.3	30 25·3 12 25·4 18 25·3 16 25·3	9 834 3 826 6 818 3 817	820 694 663 721	1079 1093 1088 1067	27232 26630 27364 25100	1 , 2 , 1 ,	; ;; ; ;; ; ;; ; ;;	275 268 260 248 248 248	411 416 415 411	495 505 508 510	348 348 343 338	565 564 566 562	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
JULY AUG. SEPT OCT NOV. DEC.	83· 86· 84· 80·	1 85° 7 84° 1 87° 9° 87°	6 12 4 14 3 12 3 12	3 18 2 19 4 17 8 17	9 32 9 19 7 58 8 62	8 24 7 24 8 26 1 27	4 88.5 4 86.6 6 83.6	77 25·5 59 25·5 37 25·4	2 808 2 807 8 811 1 823	597 629 729 641	1004 1074 1261 1208	24723 25916 25086 2275), 5, 1, 1,	; ;; ; ;; ; ;; ; ;;	238 268 253 248 243 228	394 384 387 383 383	481 446 445 444 447	327 339 344 337 334	534 511 502 501 510	} ₅
1933 JAN.		82-	13	1 18	7			7 †25.6		91.3, 33	1.	2141			228		1			1

^{*} July, 1914.

* July, 1914.

FINANCE.

Value of Stocks and Shares
Clearing House Returns.—
Exchanges.—
Bank of France.—
PRIOES.
Wholesale.—
Retail.— ©

Index numbers for 15th of month.

Total clearings during the month at the Bankers' Clearing House of Paris.

Monthly average of daily rates in Paris.

Middle of month, except Debits and Credits, which are based upon daily averages.

Index calculated by the Statistique Générale de la France for 45 commodities at the end of the month. Index for Paris calculated (1) for 13 commodities by the Statistique Générale during the month, giving each commodity a weight corresponding to the consumption of a family of four persons: (2) for all expenses of a working-class home according to the Paris Commission on the Cost of Living.

[†] Provisional.

[‡] Including Sinking Fund.

^{§ 1}st Qr., 1914.

TRADE, OUTPUT, TRANSPORT & EMPLOYMENT

NAMES OF TAXABLE PARTY OF TAXABLE PARTY.		THE REAL PROPERTY.		-		LIU	MORNOCH CONTRACTOR	**************************************	TAIN	OT	ノハ	L &		MP	LU	Y IVI	FIN	l.	************	
		IMPO	RTS.*			EXPO	RTS.*				C	UTPUT		SH	IPPIN	G.	RAIL	WAYS	EM	P'T
	Total.	Food.	Raw Materials.	Manufactures.	Total.	Food.	Raw Materials.	Manufactures.	Wei	Ex-	Coal (excl. Saar),	Pig Iron.	Steel.	Entered. Cars	with	INLAND TRANS- PORT BY WATER.	Average weekly Receipts of chief Railways.	Av. daily No. of Trucks Loaded.	work of tho found	
	Mn.f.	Mn.f.	Mn.f.	Mn.f.	Mn.f.	Mn.f.	Mn.f.	Mn.f.	Mn. Me	r.Tns.	000	Metric T	ons.	Mn. Tons	Mn. Tons	Mn. Tons	Mn.f.	000.	9%	# ⁻ -
Pre-War	541	105	333	103	74	65	135	274	2.89	1.24	3346	540	374	2.24	1.71	†9-02	34			_
(1904-13). 1924 Av.	3344	742	2178	424	3454	333	878	1994	4.71	2.45	3667	638	575	3.55	2.72	9 19	152	53.2	286	178
1926 1st Qr.Av 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	4941 4864 4959 5074	877 863 1062 1057	3444 3339 3216 3457	620 662 681 561	4413 4496 5328 5609	371 362 433 525	1263 1251 1416 1627	2779 2882 3479 3457	3·91 3·89 3·71 3·66	2·65 2·66 2·79 2·72	4213 4109 4292 4527	747 776 797 811	672 681 709 732	3·35 3·77 3·75 3·84	2·77 3·26 3·30 3·26	8·4 10·2 10·3 10·1	190 210 253 258	56·4 55·0 54·2 56·0	239 313 361 176	136 188 222 99
1st Qr. Av 2nd,, ,, 3rd ,, ,, 4th ,, ,,	4424 4615 3804 4775	1255 1189 1072 1109	2730 2903 2279 3152	439 523 452 513	4667 4318 4444 4980	399 409 406 580	1460 1342 1293 1499	2808 2566 2745 2901	4·40 4·28 3.83 3·94	2·98 3·13 3·23 3·34	4538 4276 4209 4238	774 772 768 784	668 688 688 713	3·67 4·34 4·23 4·11	2·92 3·73 3·73 3·60	9·4 10·8 10·8 10·9	212 230 242 238	51·7 51·5 50·1 55·5	37 48 87 84	19 26 54 45
1st Qr. Av 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	4323 4452 4147 4893	962 915 1035 1271	2800 2905 2445 2847	561 632 667 776	4253 4163 4101 4599	531 523 448 578	1119 1035 1046 1159	2602 2605 2607 2863	3·75 4·21 4·10 4·27	3·30 3·43 3·65 3·31	4328 4196 4237 4361	817 849 842 863	764 776 767 821	3·79 4·52 4·67 4·48	3·37 4·10 4·00 3·99	10·5 12·1 12·9 12·6	225 256 276 271	54·4 52·6 53·0 56·6	78 188 328 243	42 101 198 132
1st Qr. Av 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	5090 5124 4440 4775	1174 1163 1029 1027	3178 3104 2577 2861	738 856 834 887	4000 4243 4098 4350	474 524 463 562	1041 1078 1044 1025	2485 2641 2591 2763	4·40 5·10 5·11 5·17	3·13 5·35 3·52 3·34	4360 4409 4534 4608	855 878 874 875	795 808 800 815	4·21 5·06 5·19 4·91	3·60 4·36 4·36 4·08	8·49 14·33 13·93 13·08	272	52·9 55·5 54·4 58·1	233 322 372 248	121 184 230 143
JAN FEB MAR APRIL MAY JUNE.	4103	862 872 864 823 817 786	2988 2948 2527 2696 2476 2419	928 988 1040 1047 810 960	3714 4018 3958 3888 3733 3352	515 579 509 473 524 555	892 954 912 897 916 780	2307 2485 2537 2518 2293 2017	5·21 5·38 4·68 5·52 4·93 4·74	2·91 3·23 3·35 3·01 3·09 2·97	4884 4481 4695 4459 4526 4126	876 815 898 854 899 841	800 772 848 787 853 753	4·75 4·15 4·75 5·20 5·37 5·69	3·70 3·34 4·08 4·44 4·83 4·37	}12·83	261 270	54·5 56·7 56·6 54·3 54·5 53·1	191 192 191 218 225 280	106 109 119 132 144 170
JULY . AUG SEPT OCT NOV DEC	. 4068 . 4206 . 4520 . 4250	837 927 1289 1313 1214 1211	2263 2297 2044 2209 2187 2244	1020 844 873 998 849 875	3530 3108 3359 3503 3441 3227	527 374 406 464 504 453	822 743 755 771 825 723	2181 1991 2198 2268 2112 2051	4·89 4·98 5·19 5·30 4·92 5·01	3·07 3·19 3·08 2·99 2·84 2·86	4499 4356 4513 4684 4290 4371	861 845 800 827 781 806	790 775 764 797 705 766	5·46 5·50 4·61 6·25 3·90 5·36	4·62 4·51 4·87 4·35 3·90 4·06	}13·6	296 292	50·3 50·3 53·3 56·5 54·3 52·8	278 259 264 198 137 113	182 158 188 125 75 53
JAN FEB MAR APRIL MAY JUNE	. 4065 . 3929 . 3902	1074 1151 1171 1263 1125 1283	1970 2049 1914 1810 1701 1800	773 865 844 829 749 832	2574 2757 3076 2877 2438 2513	335 345 342 418 321 414	613 681 734 670 605 593	1626 1731 2000 1789 1512 1506	4.92	2·36 2·68 2·67 2·47 2·33 2·81	4543 4244 4535 4203 4014 4106	801 726 775 739 724 691	746 693 722 675 674 650	4·16 4·01 4·29 5·12 5·53 5·37	3·24 3·33 3·46 4·46 4·56 4·59	}11·5	246 255	48·1 50·4 51·6 49·5 48·2 49·1	59 40 36 35 42 52	27 20 18 18 20 25
JULY. AUG. SEPT. OCT NOV DEC	3128 2891	1360 1203 1219 1198 1014 938	1534 1313 1436 1199 1164 1148	742 674 691 731 713 721	2420 2316 2435 2535 2385 2097	380 390	599	1550 1585 1396	4·62 5·04 4·55 4·45		4076	680 655 637 567	644 655 626 538	4.03	4·40 5·70 3·07 4·11 3·69 3·66	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	268 270 278 264 28 28		52 37 20	
JAN FEB MAR APRII MAY JUNE	2618 2837 2482		1153 1309 1131	502 540 573 552 442 471	1769 1720 1742 1471	243 252 246 218	437 408 429 330	1089 1060 1067 923	3·79 4·05 7 4·22 3 3·79	2:08 1:98 1:98 1:81	3738 3789 3794 3694	3 458 9 471 4 460 4 459	463 464 457 448	3·75 3·98 4·30 4·69	3·12 3·42 3·25 4·23	$\left\{\begin{array}{c c} 10^{\circ} \\ 13^{\circ} \end{array}\right\}$	215 211	43·3 43·2 43·9		3 3
JULY AUG. SEPT. OCT. NOV. DEC. 1933 JAN.	2274 2228 2423 2538 2695	963 796 838 970	930 1017 1135 1139	415 450 429	1424 1626 1702 1729	192 3 247 2 250 3 294	312 347 400 4 398	920 7 1035 1 1065 3 1037	0 3·94 2 3·75 2 3·95 7 3·99	2·20 2·11 2·04	3809 383 4009	2 456 L 445 9 45 4 458	3 47. 5 45. 7 46. 3 46.	4·68 4·73 4·93 4·06	3·93 4·50 3·91	3 } 13· 0 } 8	224 4 227 239 225 204 209	43. 42. 45. 46.	4 1 4 1 5 1	8 4

Number of applicants obtaining work through the public labour exchanges during the month, as a percentage of those still not placed.

TRANSPORT.

Shipping.—Tonnage of ships of all nationalities entered and cleared (with cargoes) during the month.

Trucks.—Daily average number loaded on all the principal railways (including State railways but not including those in Alsace-Lorraine).

EMPLOYMENT.

France]

still more in weight. The fall applied to all articles.

The table of the value of trade with each of the principal countries shows reductions throughout; trade with Germany diminished by nearly 50%; with Great Britain, which has raised tariffs, imports fell 36% and exports 60%, and with the United States exports also diminished relatively more than imports. From Algeria, Colonies and Protectorates purchases were rather greater in 1932 than 1931, following the agricultural development of those terri-

DISTRIBUTION OF SPECIAL TRADE. Mn. Francs.

	Imp	orts	Exp	orts
First 11 mos.	1931	1932	1931	1932
Great Britain	3489 5692 3414 840 1353 1300 3537 586 1360 12066	2225 3331 2215 553 573 642 2695 491 1010 7868	4723 2569 3335 2151 915 633 1437 131 484 5216	1815 1546 2048 1388 554 354 878 101 284 3413
Total Foreign Countries	33637	21603	21594	12381
Algeria, Colonies and Protectorates	575 5	5828	6708	5613
Total	39392	27131	28302	17994

tories, but sales thereto have been much reduced.

At the end of the year the falling off of exports persisted but there was some recovery in imports of raw materials.

Wholesale prices of agricultural produce and of raw materials moved somewhat differently during the year. The index for the former showed little variation till the middle of July; the first wheat crop forecasts indicating an abundant harvest, internal prices of wheat weakened immediately, for customs duties have eliminated the influence of external prices which did not fall so much. The index number for all agricultural produce fell until the end of the year and in December was 7% lower than a year before. The index for vegetable produce naturally diminished more than this—in December it was 25% lower than a year before—but the index for animal produce hardly changed. Colonial produce fell slightly.

The index for the industrial materials group fell during 1932 until the summer; it then recovered, but did not maintain this tendency to the end of the year, when it was rather lower than at the end of 1931. The fall was particularly marked in minerals; textiles showed a slight recovery at the end of the year, the level being nevertheless lower than in 1931.

WHOLESALE PRICES. Average 1901-10=100.

	1 1	1930		198	19			198	00		% Ch	ange
	No of items.	1930 4th.	1 st. [Quar 2nd.		4th.	1st.	Quar		4th•	4th Qr. 1980 to 4th Qr.	4th Qr 1931 to 4th Qr
	1 1	4011.	150.	Ziiu.	Jiu.	441.	150,	Zira.	oru.	2011	1931.	1982.
700D—	1				has said							
Vegetable Food	8	579	633	671	570	572	604	612	487	452	_ 1	21
Animal Food	8	728	718	674	662	548	591	599	591	597	- 25	+ 9
Sugar, Coffee, Cocoa	4	475	452	487	493	479	479	494	497	469	+ 1	_ 2
Total Food	20	618	631	635	592	544	5'/4	583	530	511	- 12	- 6
MATERIALS—									CHARLES TO STANDARD THE	***************************************		-
Minerals and Metals	7	501	450	429	424	399	381	358	366	367	_ 20	- 8
Pig Iron	1 1	571	409	425	395	371	350	321	299	293	— 35	- 21
Iron Bars	1	459	418	393	417	417	417	428	428	430	_ 9	+ 3
Copper	1	365	347	316	266	247	219	195	189	197	32	_ 26
Lead	1	599	515	484	494	444	414	358	350	333	- 26	- 25
Coal	1	706	689	667	667	667	641	628	628	634	- 6	 5
Textiles	6	471	426	420	375	344	332	311	322	306	_ 27	11
Cotton	l ĭ l	499	518	474	347	305	323	279	339	305	- 39	
Wool &	ī	422	388	411	330	322	295	263	288	270	- 24	- 16
Silk	1	336	341	284	271	266	235	210	197	183	_ 2i	— 31
Hides, Skins, Tallow	3	309	271	232	194	177	173	151	147	149	43	16
Oils	2	810	784	752	691	569	535	536	520	535	— 43 — 30	— 16 — 6
Alcohol	l ī l	538	561	537	489	489	489	497	501	484		_ ĭ
Petroleum	l ī	771	742	742	704	719	727	764	749	733	$\begin{vmatrix} -97 \end{vmatrix}$	+ 2
Soda Compounds	2	508	496	498	477	475	460	463	445	446	_ 6	L 6
Benzol	i	1147	1033	940	920	910	910	870	877	956	- 21	+ 5
Wood	1	1071	1039	968	947	783	637	664	674	681	— 27	13
Rubber	1	39	33	30	26	23	20	16	19	18	- 41	_ 21
Total Materials	25	539	500	478	449	416	398	385	387	387	23	7
Total Food and Materials	45	574	558	548	512	473	476	473	451	444	-18	

The preceding table shows the quarterly movement in the past two years. In 1931 the fall was greater in raw materials than in foodstuffs, and among the latter animal produce was most affected. Of raw materials, pig iron, copper, cotton, hides and rubber showed the greatest movements. During 1932 it was vegetable produce (on account of wheat), then silks, copper and lead which showed the greatest declines. But it will be noted that for the total of all items the reduction during the latter year was only a third of that which took place in the

Production in general was much lower than a year before, but in some cases is tending to improve. Towards the end of 1932, the coal output was nearly the same as a year before; that of iron ore appreciably less; in November production of pig iron was nearly 20% down and that of steel nearly 15% compared with the end of 1931; in December, however, the reductions were only 10% and 5%. the other hand, the number of furnaces in blast, though still 15 less than at the end of last year, has not diminished for several months. The reduction in the building trade exceeds 50%

compared with a year ago. The cotton trade, on the contrary, is enjoying a surfeit of orders for both yarns and tissues; the woollen trade and silk trade also exhibit greater activity than in

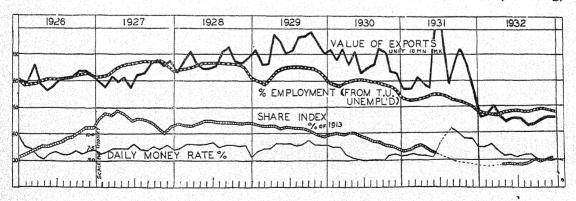
the previous year.

Unemployment, however, seems to have been intensified compared with the winter of 1931, judging from the number of assisted unemployed. The number of bankruptcies and liquidations is also greater and does not yet show signs of declining. The revenue from the turnover tax is 12 to 15% lower than before. The discount portfolio of the Bank of France, as already observed, is less than half its value in the previous year. Railway receipts are down, but the number of waggons loaded, which had been below the number in the previous year until December, rose slightly above it at the end of the year.

During the fourth quarter of the year the index of retail prices was 10% below the figure for a year earlier, though the Paris cost of living index had diminished only 3%. Savings Bank deposits are considerably reduced. Receipts from entertainment tax are also smaller than last year.

GERMANY.

Information communicated by Dr. MORITZ ELSAS (Frankfürt), in consultation with Professor LOTZ (Munich) and Professor von SCHULZE-GAEVERNITZ (Freiburg).



REVIEW OF THE YEAR 1932.

January 29th, 1933.

HE year 1932 witnessed the turn of the crisis which had dominated the first part of the year. The emergency decree of December, 1931, with its provision for wage reductions had further curtailed the purchasing power of the masses and accentuated the deflationary process. The result was a falling turnover, contracted production and declining revenue for the State and the railways. Along with the intensified economic depression went increasing internal political tension arising out of the great mass of unemployment and its accompanying hardship.

Germany]

The second half of the year presented a totally different picture. Unemployment showed, if not an absolute, a comparative, improvement on the previous year. There was a progressive easing of the money market, and interest rates at least for short-term loans were considerably Moreover, money which had been reduced. hoarded through mistrust of banking and savings institutions returned into circulation. savings banks suffered no further losses of deposits and in the last few months of the year recorded an increase. The change-about in the situation showed itself most clearly on the security markets. Both the bond and the share market experienced at first a slow and then a rapid revival, and, just as the crisis had fostered the extremist movements in politics, so did the renewed confidence in recovery, and the improved outlook for business damped down the agitation.

What brought about the change? The most important event was the result of the Lausanne Conference, which although it still awaits ratification, constitutes the turning point of the crisis. The reception of this result showed not only that it was regarded in Germany as the removal of an obstacle which made revival impossible, but that the rest of the world shared this sentiment. It was hardly a coincidence that a rise in raw material prices and a recovery in confidence all over the world accompanied the Lausanne settlement.

Another circumstance served to reawaken enterprise in Germany. The first half of the year was characterised by increasing pressure of taxation. With the continuous decline in the yield of taxation, fresh imposts in the form of poll-taxes and emergency taxes were added. The increased burdens and the necessity for meeting them out of capital provided a further discouragement to industry.

With the change of government in the middle of the year, an end was made to this overtaxation of industry and a partial relief was afforded. An original method was adopted to secure this. The revenue of future years was anticipated by the issue of "tax certificates" which could be discounted at the commercial banks or the central bank thus securing funds for industry. It was also decided to stop the process of salary and wage reductions, since although some adjustment was necessary to secure equilibrium, the excessive lowering of the wage level and in particular the indiscriminate application of the principle to all types of industry, curtails purchasing power

in such a way as to nullify the advantage of the reduction in costs.

Moreover, apart from taxation relief, an attempt has been made to revive industry by direct creation of work. In order to encourage property owners to recondition their houses. repair subsidies were granted which were specially large for conversions into flats. Industry was granted larger rebates for extensions and new construction. Volunteer labour was organised and work centres were set up to provide young adults with productive work. Finally, a Works Commissioner was appointed with the task of effecting a large scale programme of construction. Comparatively large sums have been provided for this and it is hoped that this direct creation of work, which includes private industry in its scope, will give the necessary stimulus to revival.

Nevertheless, when everything has been taken into account, much remains to be done to secure the desired result. State intervention between debtors and creditors has created extreme uncertainty which must be dispelled before confidence can be completely restored. In addition the process of national isolation brought about by tariffs, quotas and exchange control must be contracted within reasonable bounds if world trade is to be restored. But the recovery of world trade is essential for every country whose welfare is bound up with international exchange, and particularly so for Germany, which has to cover its private indebtedness by an export surplus.

This indebtedness abroad was reduced last year by repayments, but is still very large. The readiness of Germany to fulfil its private external obligations is beyond dispute, but she must be allowed to achieve this by her labour, i.e., by the export of products. The fulfilment of external obligations was facilitated last year by a good harvest at home, which reduced food imports to a minimum, and also by the fall in the cost of imported raw materials. Consequently, in spite of a large decline in exports, Germany was able to meet her obligations for interest and at the same time to achieve a small amount of capital redemption.

Five general elections took place last year, two for the Presidency, one for the Prussian Chamber, and two for the Reichstag. Only the second Reichstag election brought any change.

The official discount rate was reduced four times in 1932. After 7% at the beginning of the year, it was 4% at the end. For some time, as

the note cover was below 40%, 5% represented the irreducible minimum, but with the consent of the Bank of International Settlements this restriction was rendered inoperative. Increasing ease was also felt in the private discount market, but long-term rates, especially mortgage rates, remained high. Mortgage investments were affected by the compulsory reduction of mortgage interest under the emergency decree of December 1931, which naturally discouraged lending. The same effect was produced by the compulsory reduction of interest rates on agricultural loans which was effected last summer.

The gold and foreign exchange holdings of the Reichsbank underwent no important change. Usually the cover represented about one-quarter of the notes in circulation, but it should be noted that only a part of the gold reserve is the property of the Bank, about one-half being pledged to other Central Banks. The agitation concerning the currency has fortunately ceased; no one now believes that a depreciation of the currency or a departure from gold would be of any advantage, particularly now that the export trade is no longer exclusively determined by price levels.

After three years of crisis the national finances are, of course, worse. The deficit for this year may run to about 500 Mn. marks, making, with the deficits of the two previous years, a total deficit of 2,000 Mn. expenditure has been very severely curtailed it is now not much more than half of the 1928 amount—it is hoped that the deficit would speedily disappear with the increased revenue brought by a trade revival. The State is, of course, still carrying large obligations arising out of the reconstruction of the banks and the guarantees which it has assumed, but it cannot be said yet how large these will be eventually or for what amount the State will be liable. A still more difficult problem is presented by the financial situation of the municipalities which find it extremely difficult to achieve budgetary equilibrium in face of the large indebtedness which they incurred in previous years, and of the falling off in revenue.

The Bourse was closed till the middle of April, at least for official business. Prices were very low at the reopening, and it was only in the late summer that increased business led to a gradual improvement, for the reasons given above. Some of the improvement may have been due to the fact that foreign holders of

blocked accounts turned them into securities, whilst at the same time expatriated German money was brought home and used on the Bourse.

The sensitive price index rose in the autumn owing to the improvement in raw material prices, but fell again on their renewed decline. In particular, agricultural prices failed to strengthen in spite of all supporting measures, but continued their downward course. The spread between the prices of agricultural products and of manufactures is therefore still wide.

The cost of living declined by more than 5% during 1932, chiefly owing to the fall in foodstuffs.

Although, as is shown clearly by bank clearings, there was a large decline in turn-over during 1932, the year was not without its bright side. The coal and iron and steel industries passed the worst stage and showed expanding business at the end of the year. Since the heavy industries have succeeded in greatly reducing their costs they should return to a profitable basis if the improvement holds.

The improvement was assisted by orders from Russia and from the railways, and it is too early to estimate the prospects of its continuance. The textile and leather industries expanded their output in the second half of the year, but other branches showed little evidence of a revival.

Bankruptcies and bill protests in 1932 were much fewer than in the previous year, and it may be concluded that the process of liquidation is nearing its end. External trade showed a considerable decline in 1931, with exports falling off much more than imports. A part of the decline was attributable to the fall in prices and the rest to protective measures against foreign products. Exports would have suffered still more if Russian orders had not been maintained at a high level.

The number of unemployed on January 1st, 1932, was 5,668,000, and by February 1st the total had reached 6,128,000. The minimum for the year, 5,103,000, occurred at the end of September; by the end of the year the figure had risen to 5,773,000. Thus the year closed with 100,000 more than a twelvemonth before, but this can be regarded as an improvement in view of the fact that the July figure was 1,500,000 above the corresponding figure of 1931. In other words the increase was in the second half of 1931 1,700,000, but only 300,000 in the second half of 1932. It should be remembered,

FINANCE, PRICES and WAGES.

CHARGE THE STREET											and the same of th		monthlift in old Turk	tuher erubbilitieren	Meridania Mathematika	ii) an maraich ann aig	delinate de la companya de la compa	
		(S & SI	IARES.		BAN	KING.		. bn .	nge.	·e·	s.		WHOL	ESALE.		RET		REAL
	EX	Issu	oital es by	Reich	sbank.	Note Cir	culation.	Debt ludin loans	xcha	Rat	ptcie		Pig. 3	Index Price		Index Pric		VAGES.
	SHARE INDEX of the Statitisches Reichsamt	New Sompanies.	Existing Companies.	Clearings.	M Outside	Reichs- Eank Notes	Including M other Notes and Coinage.	Floating Debt. Total including Foreign Loans.	K F New York Exchange.	Daily Money Rate.	No. of Bankruptcies.	Silver (90.) fine)	d M Foundry Pig is m Iron No. 3 Oberhausen	Food.	All Items.	Cost of Living (Reichs Index)	Cost of Living (Elsas).	All Germany. Index Nos. for Skilled Workers.
	%‡	Mn.	Mn.	Mn.	Mn.	Mn.	000 Mn.	Mn.	\$	%		p. Kg.	M.Ton	%	%	00	!	2 1 8
Pre-War Average 1926				6100		Aug., 1914 4500			4.2	July, 1914 3:15	815	81.0		100	100	100	Jan., 1914 100	1913 100
1st Qr.Av 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	82·4 97·1 116·8 139·5	10·7 10·3 29·0 22·0	36·8 337·9 282·4 195·7	4158 4527 4769 5504	869 814 712 744	2877 2978 3194 3479	4·94 5·08 5·35 5·57	2330 2237 2176 2193	4·2 4·2 4·2 4·203	8·1 5·6 6·2 6·3	1987 1087 554 464	93·1 89·5 88·2 75·9	86 86 86 86	121·0 122·7 131·5 142·1	134·4 132·3 134·0 136·8	139 140 142 143	129 129 132 134	105 104 102 102
1stQr.Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	167·5 167·6 156·5 140·4	15·7 19·3 69·0 13·1	195.4 153.7 104.2 148.9	6250 8285 8664 9381	732 675 670 620	3488 3737 4015 4327	5·47 5·70 5·96 6·14	4213† 4400 4331 7947*	4:214 4:219 4:210 4:191	6·4 7·0 7·25 7·4	508 437 398 546	78·9 78·3 77·5 78·8	86 86 83 78	138·5 138·1 137·7 136·9	135·5 136·7 138·3 139·8	145·0 146·9 147·9 150·7	136 140 140 142	101 104 104 103
1928 1stOr,Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	151·7 149·4	22·1 31·3 33.8 24·7	64·2 138·4 127·6 249·8	9728 10115 9968 10523	560 517 532 534	4344 4527 4691 4775	6·03 6·22 6·40 6·49	7821 7896 7922 8130	4·192 4·179 4·190 4·196	7·4 8·0 8·0 7·9	752 669 579 661	79·0 81·3 81·6 79·8	82 82 82 82	131·2 135·1 136·1 134·7	138·3 140·6 140·9 140·2	150·7 150·9 152·8 152·4	144 144 144 146	103 106 106 108
1st Qr.Av 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	143.1 138.4 134.1 119.9	115·6 22·4 10·3 16·0	120·3 95·8 68·2 81·9	10571 11020 10365 10119	509 641 498 450	4610 4692 4846 4931	6:31 6:37 6:49 6:56	8616 9155 9389 9582	4·209 4·210 4·199 4·184	6·8 8·2 8·25 8·3	846 845 747 845	78·6 75·8 72·5 68·9	82 84 85 85	133·1 125·9 132·5 128·8	139·4 135·9 138·1 135·7	154.6 153.5 154.0 153.0	147 145 147 148	107 109 110 111
JAN FEB MAR APR MAY JUNE	. 120.6 . 119.0 . 122.2 . 121.7	27.0	148·0 36·4 18·2 78·2 47·7 33·7	10589 9122 9775 10142 10258 9565	543 502 459 638 556 537	4653 4722 4805 4664 4812 4685	6·15 6·22 6·31 6·17 6·32 6·27	9388 9412 9628 9863 9400 11123	4·184 4·186 4·191 4·189 4·189 4·190	8·0 7·5 7·5 6·0 5·5 5·25	1106 1103 1142 1006 1062 853	64·3 61·1 59·4 58·5 58·9 53·9	85 85 85 85 85 83	121.8 116.0 110.0 112.1 110.7 109.7	132·1 129·8 126·3 126·9 125·8 124·2	151.6 150.3 148.7 147.4 146.7 147.6	147 145 145	112 113 115 116 116 116
JULY AUG . SEPT OCT NOV DEC 1931	103·3 . 102·3 . 95·8 . 92·3	45·4 157·3 38·6 30·3	94·6 40·6 81·4 98·6 30·2 36·1	11161 9294 10093 11212 8684 9447	427 447 352 355 282 301	4638 4707 4744 4674 4601 4778	6·21 6·30 6·34 6·27 6·19 6·38	10908 10969 11030 10940 11454 11295	4·195 4·183 4·189 4·202 4·197 4·195	5·0 5·0 5·0 5·0 6·0 6·25	977 810 759 843 829 850	48.6 48.1 48.6 49.4 49.9 49.6	83 83 83 83 83 83	114·8 116·6 113·5 109·3 112·0 110·4	125·5 125·0 123·0 120·0 120·5 117·9	149.3 148.8 146.9 145.4 143.5 141.6	147 144 140	114 115 116 117 119 120
JAN FEB MAR. APR MAY. JUNE	91·1 92·4 83·0	4·9 3·9 3·1 247·3	99·8 117·4 12·4 14·5 69·8 53·4	9588 7962 8882 8969 8607 10324	323 250 266 313 279 324	4383 4428 4456 4340 4299 4295	5·96 6·02 6·05 5·92 5·86 5·96	11251 11172 11283 11350 11494 11539	4·198 4·206 4·206 4·200 4·200 4·211	6.0 6.25 6.0 6.0 5.5	972 956 1034	44·1 40·6 38·9 39·9 40·1 37·1	78 78 78 78 78 78 78	106·7 105·9 106·7 108·3 109·2 107·3	115·6 114·0 114·3 113·8 113·5 112·2	140·4 138·8 137·7 137·2 137·3 137·8	139 137 135	120 121 121 119 117 117
JULY AUG. SEPT OCT. NOV. DEC. 1932	<u>-</u> 56:8 <u>-</u>	17·9 201·1 11·6 4·0 1·4 3·7	35·4 12·7 322·6 7·4 27·8 45·4	4554 4310 6214 5868 4760 5803	307 526 393 551 407 434	4554 4384 4609 4746 4641 4756	6·14 6·04 6·30 6·48 6·39 6·64	11443 11323 11709 11743 11638 11707	4·213 4·213 4·213 4·213 4·213 4·213	8·25 11·0 10·0 9·0 9·0	1013 1065 1341 1435 1215 1178	41·2 39·2 41·0 45·0 42·5	78 78 78 78 78 78 73-35	105·4 103·4 101·1 98·5 98·5 94·5	112·3 110·8 108·8 106·7 106·6 103·6	137.4 134.9 134.0 133.1 131.9 130.4	136 134 129	117 119 120 120 120 120
JAN. FEB. MAR. APR. MAY. JUNE	— 49·6 50·6	1.5	18·4 5·2 10·3 68·0 6 9 5·3	5022 4317 5367 4649 4085 5010	384 371 344 384 354 380	4407 4268 4231 4128 3960 3984	6·28 6·22 6·22 6·16 5·96 6·03	11625 11623 11426 11579 11758 11756	4·213 4·213 4·213 4·213 4·213 4·213	5.75	739	44·2 43·2 44·5 43·2 40·2 40·5	69 69 69 69 69	92·1 94·6 96·5 94·7 93·4 92·1	100·7 100 100·1 98·5 97·7 96·0	124·5 122·3 122·4 121·7 121·1 121·4	121 119 119	113 115 115 115 115 112 112
JULY AUG SEPT. OCT NOV DEC	52·2 59·0 57·2 58·2	1.6 1.4 15.0 3.7	19.6 15.6 23.2 18.2 30.8 10.1	4288 4035 5062 4642 4033 4806	339 339 413 367 358 354	3967 3817 3754 3620 3531 3560	6.02 5.86 5.86 5.71 5.60 5.64	11759 11743 11541 11537 11570 11546	4·213 4·213 4·213 4·213 4·213 4·213	5·75 5·88 5·0 4·88	480 459 449	39·0 39·0 41·0 39·7 38·5 36·7	69 69 69 69 63 63	92·5 91·0 89·0 88·0 87·8 84·4	95.8 95.0 95.3 94.6 94.1 92.5	121·5 120·3 119·5 119·0 118·8 118·4	120 117 116	111 112 112 112 112 112 112§
1933 JAN FEB	1.00			4666	353	3338			4·213 4·213	4.75		35·1 37·0			91.2		114.5	
Includ	ling Red	demptio	neLoan a	nd New	1927 Los	ın. *Re	edemption	loan debt	subseque	tly incl	nded at	redemn	tion val	ne ie 5	times pro	vione no	minal ana	ations

† Including Redemption Loan and New 1927 Loan.

**Includes Bevag Flotation.

*Redemption loan debt subsequently included at redemption value, i.e., 5 times previous nominal quotations.

1 Base1924-6 average.

§ Provisional.

FINANCE Share Index.—

Wirtschaft und Statistik. Reichsbank-Clearings- Wirtschaft und Statistik.

Outside Deposits .- Second week of month. End of month.

Note Circulation. State Debt.-

New York Exchange -1st of month.

Index Numbers for middle of month. Based on 1924-6 average. Wirtschaft und Statistik.

Retail— Reichs Index.— Elsas Index.—

Silver.— Pig Iron.— Food and All Items.—

WAGES.

PRICES.

Wholesale-

1st of month.

lst of month.

Monthly average. Wirtschaft und Statistik.
Statistisches Reichsamt Index — average for month and middle of month respectively.
For middle of month. Eildienst des statistisches Reichsamtes.
Includes clothing. For 1st of month. Indexiffer über die Kosten der Lebenshaltung.

Wirtschaft und Statistik. Weighted average for skilled workers in 12 occupations. Average for month. Based on hourly wages from 1981, previously on weekly wages.

TRADE, TRANSPORT, EMPLOYMENT.

				EXI	ERNA	L TRA	DE.‡					OUTPUT		SHIPI	PING.	ipts.	UNEM	PLOY	rn'm
		IMPC		g.		EXPO			Estim'd in Gold	value Marks	4	d	ť	HAME Tonn		Goods Receipts	ions	Perc't Trade Mem	Union
	Total.	Food.	Raw Materials.	M'factures	Total.	F00d.	Raw Materials.	M'factures.	Imports.	Exports.	O000 Metric	000 Iron.	ooo Steel.	Entered.	Cleared.	Railway Goo	Total Persons Unemployed.	Unem-	On Short
re-War			Weight	in 0000	Metric	Tons.	·		Mn.	Mn.	Tons.	Metric Tons.	Metric Tons.	Tons.	Tons.	Mn.M.	000	%	%
Average 1926	607*			_	614*		_		934	850	1474	910	981	1182	1203				
st Qr. Av ad Qr. Av. rd Qr. Av. th Qr. Av.	290 328 398 426	47 70 98 89	236 248 290 322	7 8 10 12	357 419 659 632	25 15 14 24	271 345 584 546	61 59 61 62	714 744 950 1120	839 758 833 865	1107 1084 1294 1360	679 708 833 994	852 915 1103 1245	1273 1381 1666 1503	1287 1389 1701 1522	193·0 211·0 239·9 281·7	2414 2245 1976	21·3 19·4 17·5 14·5	19:1 16:3 10:4
1927 t Qr. Av. d Qr. Av. d Qr. Av. h Qr. Av.	484 550 637 598	89 103 106 105	379 425 508 469	14 20 22 22	471 397 418 359	14 16 15 20	396 327 344 274	60 54 58 58	1139 1162 1226 1275	800 794 885 945	1338 1197 1278 1306	1038 1083 1110 1136	1319 1331 1386 1394	1500 1666 1651 1785	1486 1659 1705 1784	245·9 266·7 272·4 287·1	2454 1642 1060 1002	16·2 9·1 5·6 5·5	6· 3· 2· 2·
1928 t Or. Av. d Ör. Av. d Ör. Av. h Ör. Av.	547 513 600 540	91 81 93 87	433 411 488 434	21 19 18 18	373 348 397 395	18 22 20 33	293 265 307 304	61 61 70 58	1305 1184 1231 1286	944 906 1002 960	1349 1183 1255 1242	1158 1037 1017 722	1405 1234 1277 917	1724 1857 1828 1756	1726 1837 1862 1724	269·1 255·1 277·9 286·9	1956 1436 1175 1410	11.5 7.4 6.3 7.8	3· 4· 6· 6.
1929 t Qr. Av. d Qr. Av. d Qr. Av. h Qr. Av.	430 578 647 571	60 75 87 73	354 483 541 481	15 18 17 15	337 453 517 522	22 35 24 32	257 339 417 417	58 79 76 73	1129 1171 1203 1126	966 1095 1101 1091	1303 1313 1410 1422	1047 1134 1127 1116	1351 1422 136 7 1273	1551 1800 1895 1966	1540 1813 1854 1916	274·8 289·1 300·8 296·8	2852 1960 1366 1710	19·5 12·3 8·7 11·4	8. 7. 6. 7.
1930 in EB AR PRIL AY JNE	632 504 447 474 457 472	148 64 52 71 47 55	468 426 380 388 395 403	14 13 13 14 15 13	537 455 465 440 518 466	24 21 27 24 26 32	438 369 367 349 419 376	75 65 71 67 73 58	1320 1144 884 968 863 847	1036 966 1046 929 1022 861	1440 1217 1254 1148 1195 1080	1092 965 1007 901 859 767	1275 1176 1201 1033 1034 859	1763 1725 1918 1806 2036 1955	1808 1688 1853 1817 2062 1809	241·9 224·1 253·9 230·1 247·7 228·7	2895 3218 3366 3041 2787 2635	20·1 22·0 23·5 21·7 20·3 19·5	8 11 13 12 12 12 12
JLY JG JT JV DV	528 488 447 465 397 383	70 46 42 59 42 45	445 429 392 394 344 326	12 12 12 11 11 11	490 450 463 515 426 407	21 21 20 21 21 21 21	410 364 382 429 349 329	59 64 61 64 55 57	916 803 747 850 743 723	897 920 1047 14191 873 854	1160 1147 1173 1222 1082 1152	771 739 653 687 637 615	906 897 814 856 739 744	1785 1960 1849 1992 1803 1845	1946 1935 1947 1898 1808 1763	239·9 237·2 243·0 260·1 220·1 209·7	2641 2765 2883 3004 3252 3699	19·5 20·5 21·7 22·5 23·6 26·0	12 13 14 15 15 16
* 1931 IN EB AR PRIL AY JNE	411 347 326 357 327 381	60 40 41 48 43 50	341 296 274 298 272 318	10 11 11 11 11 11 12	441 367 405 413 418 435	15 14 19 26 22 18	371 303 327 333 342 365	55 50 58 54 53 52	769 673 632 730 629 655	727 735 825 783 750 1284	1153 979 1061 951 934 949	603 520 560 529 555 575	773 760 811 743 744 779	1777 1491 1770 1733 1816 1856	1796 1528 1662 1695 1882 1815	191.7 178.9 209.9 197.9 202.2 208.0	4384 4887 4972 4744 4358 4053	31.7 34.2 34.5 33.8 31.9 30.0	16 19 19 19 18 17
ILY UG EPT OV EC. ,	386 329 290 300 299 316	65 38 41 47 41 52	310 282 240 245 249 256	10 9 8 8 8	443 474 480 521 461 401	18 18 27 29 28 26	366 397 387 424 377 320	58 57 66 68 55 55	607 463 460 519 497 507	1203 780 890 1029 919 716	1004 952 985 1032 962 902	569 499 438 434 427 352	803 689 593 603 548 438	1867 1803 1693 1696 1719 1648	1820 1761 1745 1770 1604 1646	199·3 180·8 199·7 207·1 183·6 147·1	3954 3990 4215 4355 4623 5060	29·8 31·1 33·7 35·1 36·8 39·0	17 19 21 22 22 21
1932 AV EB AR PRIL AY JNE	268 265 239 269 250 292	44 50 45 66 52 65	216 206 185 193 188 218	7 8 8 9 9	345 308 290 324 307 339	19 12 11 14 10 11	287 257 242 274 255 277	39 39 36 35 42 50	451 458 394 463 406 400	536 557 600 536 477 508	870 838 847 850 798 829	358 330 314 336 381 310	400 448 435 521 624 506	1635 1392 1538 1466 1484 1600	1427 1535 1455	126·2 134·8 143·0 142·6 134·6 144·7	5668 6041 6128 6034 5739 5583	42·3 43·8 44·3 44·6 43·9 43·3	22 22 22 22 22 22 22 22 22 22 22 22 22
JLY UG PT. OT. OV.	295 284 278 277 297 292	69 48 42 48 46 48	217 226 227 220 242 234	9 8 9 8 8 8	347 354 357 388 388 380	10 15 26 25 23 17	299 304 294 321 324 323	38 35 36 41 41 40	380 370 406 428 437 429	502 446 453 490 511 512	949 975	294 268 273 333 371 364	429 416 392 522 546 506	1521 1528 1415 1614 1461	1554 1401 1624	154·7 165·6 157·6	5476 5392 5224 5103 5109 5355	43·6 42·9	2 2 2 2
193 3 AN	1	1	cluding		<u>L</u>						<u> </u>	1		1	<u> </u>	<u>, , </u>	5773	45.1	2

NOTES AND SOURCES.

IMPORTS AND EXPORTS.

Weight— Values in Gold Marks—

COAL OUTPUT.

SHIPPING.

RAILWAY GOODS RECEIPTS-UNEMPLOYMENT-

Wirtschaft und Statistik. Statistiches Reichsamt.

Excluding Saar-Wirtschaft und Statistik.

Statistiches Reichsamt.

Wirtschaft und Statistik.

Total No. of Persons Unemployed on 1st of month. Wirtschaft und Statistik. Trade Union percentages for end of month, but given as for following month to be comparable with previous column.

Germany]

however, that the figures are not strictly comparable since the conditions for relief have been made more stringent and a large number of young adults are now disqualified, and since they are no longer compelled to register, the statistics are affected.

Over the period January to October, money wages fell by about 5%. In view of the fall in the cost of living this represents a fall in real wages of less than 1%. Of course, it should be remembered that at the end of 1931 wages were cut by 10% under the emergency decree. Earnings have been greatly reduced by short time so that even with hourly rates maintained the weekly wage has greatly suffered.

A satisfactory trade agreement was achieved with France at the end of the year, inasmuch as the existing treaty was maintained. Negotiations with other states are still in progress, but a trade war has broken out with the Argentine.

In spite of the hopeful atmosphere there are still many shadows which raise doubts as to any radical change for the better. The year 1932 brought restrictions on international trade, tariffs and exchange control, in a measure hitherto inconceivable and a further contraction

of world trade is threatened. Germany more than any other country is concerned that these restrictions should be modified.

RECENT MOVEMENTS.

The money market continues to ease, but the tendency is shown, not so much in money rates, as in the facility with which Treasury Bills are placed. The Bank returns for January reflect the persistent ease. At mid-month the note circulation was only 3,270 Mn. and the bill portfolio had declined to 2,385 Mn. With the gold and foreign currency reserves almost unchanged, the cover ratio was $28\frac{1}{4}\%$ and this increased in the third week to $29\frac{1}{4}\%$. At the corresponding date in 1932, the note circulation was about 1,110 Mn. higher. No great concern is felt over the Budget deficit of 2,000 Mn. marks in view of the fact that other countries, notably France and the U.S.A., show much larger deficits. In addition to the deficit there are further commitments for tax certificates and credits for creation of work which have been allocated over the next five years and amount to about 3,500 Mn. These figures do not include the guarantees undertaken by the State. It is hoped that the economic improvement

ANNUAL STATISTICS.

		1913	1925	1926	1927	1928	1929	1930	1931	1982
FINANCE— Reichsbank Clearings Note Circulation (Monthly Aver.) Postal Cheque Turnover New Capital Issues Public Revenue Reichsbank Discount Rate No. of Bankruptcies	Mn. Mks. ,, ,, ,, ,, ,, ,, No.	73634 6070 41587 720 — Average 5.88 9780	50927 4773 110000 1332 7301 Since Mar. 9 11184	56876 5235 114809 2775 6866 Since July 6 12274	97743 5820 136052 2158 8218 Since Oct. 7 5668	121002 6287 145812 2069 8964 7	126225 6432 150692 493 9001 Since Dec. 7	119342 6261 141451 559 9112 Since Oct. 5	85841 6145 123189 543 7928 Since Dec. 7 13599	55316 5965 103422 93 7036 Since Sep. 4 8603
PRODUCTION & TRADE— Total Imports † Food	Mn. Mks.	11206 2808 6280 1392	13207 4054 6199 2016	10580 3591 4927 1321	14152 4350 7150 2467	15012 4196 7249 2458	13829 3811 7203 2270	10808 2968 5499 1794	7141 1965 3476 1225	5022 1485 2412 726
Total Exports † † Food Raw Materials & semi-Manuf't'es Manufactures	Mn. Mks.	10199 1070 2274 6746	8831 510 1641 6628	9885 474 2363 6995	10273 419 2243 7550	11427 606 2277 8501	13689 716 2531 9456	11870 478 2145 8537	10641 360 1703 7111	6139 202 1013 4459
Steel	,, ,, 000 M.Tons	87 32	133 140 27 10177 12193	145 140 26 9642 12341	153 149 32 13101 16291	151 167 34 11803 14502	163 175 38 13396 16241	143 146 32 9693 11536	119 133 23 6062 8292	105 122 19 3932 5745
TRANSPORT— Railway Receipts Goods Traffic Passenger Traffic Shipping (average of arrivals and departures)	", I	2256 1008 14376	4595 2813 1428 16812	4518 2807 1321 17585	5011 3216 1372 19853	5140 3267 1447 23192	5345 3485 1425 20639	4563 2836 1346 22387	3838 2308 1151 20794	2643* 1582* 834* 16615

will continue to the point of restoring budgetary equilibrium in spite of these heavy burdens.

The first half of January witnessed an improvement on the Bourse, chiefly in the bond market, and particularly in respect of government securities. The upward movement was fostered by easy money and by the dividend disbursements of January 1st, but the chief factor making for the firmness of bonds was the general repudiation of all currency experiments. Another reason for the rise in prices was the investment of blocked balances in securities. and finally it was believed that the fierceness of internal political agitation had abated. When in the latter half of the month it was evident that no such hope was justified, some weakness resulted, but this did not offset the previous rise, probably because the extreme ease in money acted as a counterweight.

No significant change occurred in industrial wholesale prices but agricultural prices continued to sag. Supporting measures have proved unavailing in face of last year's good harvest and the decline in purchasing power, and agriculturalists are therefore putting forward fresh demands, ignoring the fact that the

purchasing power of the industrial urban population is the decisive factor in the problem. It is fortunate that the proposals for quotas on agricultural imports seem to have been rejected.

The cost of living shows a further decline. The report of the Steel Federation for the last quarter of 1932 shows some increase in output and employment.

In December there was an increase in both imports and exports. In imports the largest increase was in raw materials, and this may reflect a real upward movement in the cycle; manufactured exports rose by 16 Mn. marks, and the excess of exports amounted to 68 Mn.

The number of unemployed at the end of December was 5,773,000, an increase of 420,000 during the month compared with 610,000 during December, 1931. By the middle of January the total had risen to 5,966,000, or nearly the same as a year before.

A strike took place in the Siegerland iron and steel industry in opposition to a wage cut. Agreement was speedily reached and the strike ended.

* Merchandise only.

ITALY.

Information communicated by Professor C. OTTOLENGHI, of the Royal University of Turin.

REVIEW OF 1932.

Feb. 1st, 1933.

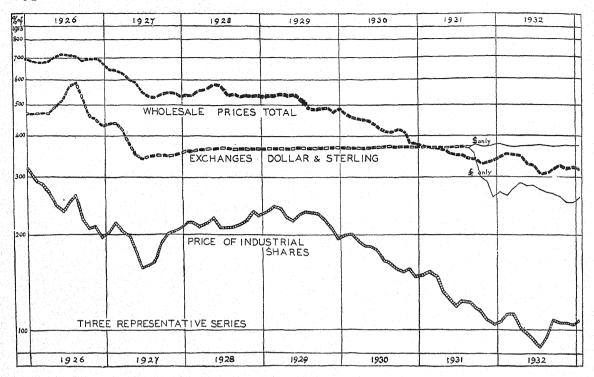
THE year 1932 takes its place in economic history as one of the most difficult we have passed through. There were various interesting economic features from which useful inferences may be drawn.

As stated in our August report, by the end of that month the great crisis which had affected the economic system for some years had passed its worst point and some signs of improvement had appeared. These were consolidated in the next month when conditions generally improved, but in succeeding months the evidence was conflicting, as was not unnatural considering the weakened state of the organism after the long period of strain, and its consequently greater liability to suffer from the effects of such difficulties as the unsolved debts problem and the tariff war. However, the symptoms at a

given moment are not sufficient for the formation of an opinion, favourable or the contrary, owing to the time lag existing between the significant factors.

POPULATION.—The number of births fell from 1,055,000 in 1931 to 1,018,000 in 1932, owing to a reduction in nearly every month. The number of marriages, which is affected by changes in the economic situation, was smaller for the whole year, but in the last months of 1932 was greater than in 1931. Mortality figures were greater for the year 1932 than 1931, but in December were only 48,000 compared with 55,000.

PRODUCTION.—The yield of the principal agricultural crops was generally greater than in the previous year. That of wheat was a record, nearly 75 Mn. quintals, and had the effect of diminishing the adverse trade balance (which



would otherwise have been increased by the rise in cotton and wool imports), thus acting indirectly as a compensating element in the monetary situation.

As is well known, the history of Italian external trade shows that in some years wheat imports have accounted for a rise not only in total imports but in all foreign trade. There was also a rise in the output of maize, silk cocoons and particularly of wine, which totalled 46 Mn. Hl. in 1932 compared with 36 Mn. in 1931.

Production of industrial materials was on the whole less than in 1931, although in some cases there was an improvement in the final months, and in some an increase compared with the last months of 1931. Pig iron totalled 461 compared with 509 thousand tons, and steel 1,391 compared with 1,452 thousand, but in November and December the figures were 127 and 124, as against 112 and 111 in 1931. In the cotton trade the percentage of active spindles was lower in the first eleven months than in 1931, but there has recently been an improvement; from a minimum of 64.2% in August the proportion rose to 73 in September, 75 in October and 78.4 in November. Production of artificial silk in the first eleven months of 1932 was 29 Mn. Kg. instead of 32 Mn.; the reduction in the output of natural silk was still heavier—from 5 Mn. to 2.7 Mn. Kg. On the other hand, benzine output was greater than in 1931—156,000 tons as compared with 132,000, a rise chiefly attributable to recent months. There was a large rise in the output of electricity in the eleven months of 1932, especially in October and November, when 911 and 844 Kwh. were generated, compared with 873 and 846 in the corresponding months of 1931.

FINANCE.—In 1932 the circulation of the Bank of Italy was considerably lower than in 1931. In that year the end of month circulation diminished from 15.2 to 14.2 Mn.; in 1932 it fell to 13 Mn. by June, and in subsequent months fluctuated between 13.3 and 13.8. At the end of December it was 13.7. The rise in the gold reserve, which has been almost uninterrupted since 1931, continued. From 5,626 Mn. at the end of December, 1931, it gradually rose to 5,839 Mn. at the end of 1932.

The exchange rate, measured in terms of the dollar and the Swiss franc, showed the firmness of the lira. The fluctuations in sterling are not so conspicuous in the monthly averages, but in the daily averages they are considerable and introduce an element of uncertainty into commercial transactions.

The Bank Rate which had been raised from $5\frac{1}{2}$ to 7% on September 28th, 1931, was reduced to 6% on March 21st, 1932, and to 5%

on May 2nd, showing the return towards normality. The following series of the prices of 5% Consols demonstrates the great improvement in government securities especially in the latter months of 1932, showing the greater confidence of investors.

	5%	Consols		MILAN BONE	INDEX
		1931	1932	1931	1932
1st Qr.		81.5	81.8	103	105
2nd ,,		83.2	82·1	104	104
3rd ,,	•••	81.5	81.2	104	106
4th ,,		82.0	84.4	103	107

Also the value of bonds of the chief companies showed a definite rise, especially towards the end of 1932.

The index of industrials is a sensitive index which shows in a pre-eminent way the fluctuations in the economic situation. It may be argued that in order to appreciate the full economic significance of this index it should be considered in relation to other movements, and especially those of wholesale prices; but it is an index which, if accidental influences can be removed, may well reveal a change in the economic position, total or partial, temporary or permanent. The variation in the index of settlement prices of 20 industrials will be found in the table on p. 16. It was lowest in July, but it should be noted that after settlement day there was a considerable rise, which continued in August causing a rise of 10 points in the index; the index for subsequent months remained nearly stationary showing that it was not due to a temporary change in the economic position, at least in the sphere of speculation and credit. The general index of Bachi and of Guarneri confirm the large rise in August although for technical reasons attributable to their construction, their lowest levels were reached in June. These indices do not show as great a movement as the industrial index, for although the Bachi index in particular shows a relapse in the last month.

As regards savings banks, the variation in deposits cannot, from their nature, show the change in the general position; but they show continuous growth, more especially those in the Post Office. The table below shows the large expansion in the latter so that during the year they have come to exceed those in the other savings banks, giving proof of a certain financial strength among those with small incomes:—

SAVINGS BANK DEPOSITS. Mn. Lire. Post Office OTHER 1932 15·1 15·2 1931 1931 1932 14·8 14·8 1st, Qr. Av. 13.4 14.7 2nd 13.2 15.2 99 14.7 3rd 14.8 Oct.—Nov. 15.8

A symptom of rather different nature is bankruptcies. The number in 1932, 12,500, was greater than in 1931, 12,196. Nevertheless, in the last five months, with the exception of October, they were less numerous than in the earlier part of the year. To this may be added particulars of protested bills which numbered 96,975 in September, 93,836 in October, 90,352 in November and 86,626 in December, which were lower figures than in any other months of 1931 or 1932.

WHOLESALE PRICES.—The analysis of prices in 1932 is interesting in two ways, (a) to show the low level to which prices have fallen and, (b) to see at what stages the changing conditions were felt. From this point of view it may be stated that nearly all the selected commodities recorded very low levels in the summer—the coal index in June at 287, iron and steel, 287 in August; cotton yarn 226 and natural silk 140 in July; meat and oil, 348 and 299, in June; wine 226 in July; wheat fell to 369 in July (but had suffered a fall in the third quarter of 1931) and also raw wool which fell to 200 in June, had been temporarily lower in October, 1931. As all the above indices are on a pre-war base when the lira was on its old gold parity, the extent of the fall will be realised. For some items there was a reaction after the great reductions. Thus, cotton yarn reacted in August to 282 and raw wool to 231 in September. Copper fell to 140 in July, rose to 170 in September, lead fell to 255 in July and rose to 305 in September. In the last two months there was again reaction, as will be seen from the table on p. 17. The Milan general index fell from 326 in January to 300 in July and August, rose to 307 in September but fell to 299 in December.

EXTERNAL TRADE AND TRANSPORT.—The total of external trade was reduced in quantity and value in 1932, which is attributable not only to the crisis itself but to the tariff barriers which are obstructing trade. Certainly there results greater consumption of home produced goods and the rise in the standard of living helps to alleviate the harm which had been caused by restrictions on external trade. Still the reductions were not universal, for in certain industrial imports there was a very appreciable advance.

The total value for the year (December data provisional), was 8,247 Mn. Lire for imports compared with 11,643 Mn. in 1931, and exports 6,796 compared with 10,209, so that the re-

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 | Savings Bank
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Benzine. | Coffee and
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and Tissues. | Citrus and other Fruit. | excl
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 | 433
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337 | 376
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† Declared values. † Monthly average 1912-4. * Prov § New Series relating to Bank of Italy as sole issuing institution. Base—total 1913 note issue.

* Provisional.

FINANCE. Exchanges— Industrial Shares—

New Capital Issues— Bank of Italy— Other Data-

NOTES AND SOURCES.

NOTES AND SOURCES.

Average daily rate (Direxione generale del Tesoro).

Monthly settling prices for shares of 20 industrial companies on the Milan Bourse (Bolletino della Borsa di Milano).

Investments in new companies (Confederazione generale bancaria).

Deposits on current account and note circulation at end of month.

Savings bank deposits at end of month.

Clearings—total for month.

Bankrupticles (Boll. mensile dell' Istituto centrale di Statistica—Ufficia Statistica del Consiglio provinciale dell' Economia di Milano).

Quantities imported and exported per month (Statistica del Commercio speciale d'importazione d'esportazione Mro delle Fisanze).

Values per month (Boll. mensile dell' Istituto centrala).

EXTERNAL TRADE.-

PRICES.

EMPLOYMENT

[Italy

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	Movem Mercha	ndise	7t. of Goods Carried.		r, Steel ad Index)	.	1	Raw Silk Special quality) or 13/15 or near) TOON			Otto	ted Incolonghi		Gen- eral Index Bachi	ry of Labour for 21 Items of Consumption	ng in Work- Families	Nos. a	t end onth
	throug Port of In- ward	Genoa Out- ward	0000 Met.	% Coal	fron, Copper, by and Lea (Weighted In	American Cotton Yarn	Raw Wool (3 grades).	Raw Si 3¢ (Special q 9/11 or 13/15	Grain (Soft).		Wine		Sugar (home)	Materials	Food	Total	Base 1901-5 =100	Ministry of % Index for 21 Popular Con	Cost of Living	Manufacturin Mining, B'ld'	TOTAL All Trades.
1913 Av.			Tons	100	100	100	100	100	100	100	100	100	% 100	100	100	100	%	% [₽]	දි% 100§	000	000
1924 Av. 1926 1st Qr. Av	551	70 78	494 523	538 552	466 551	906 790	9 45 9 4 5	817 858	454 723	788 804	438 608	503 608	482 536	672 685	527 685	573 685	737 884	545 648	499	74	165
2nd ,, ,, 3rd ,, ,, 4th ,, ,,	601 415 403	70 73 79	560 574 526	607 748 915	530 515 471	758 738 502	829 877 898	821 927 766	781 765 710	808 737 737	696 726 781	608 711 664	559 568 569	663 697 642	724 714 706	705 708 687	881 922 883	641 650 646	620 618 626 634	53 40 32 60	130 93 83 148
1st Qr. Av 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	. 593 575 433 490	80 68 72 85	521 547 552 509	542 410 363 344	458 415 383 348	487 453 534 553	828 640 533 636	744 606 497 470	638 505 438 466	700 687 575 554	798 756 682 721	664 655 636 532	569 548 540 520	556 471 443 439	673 624 569 580	636 575 530 535	825 748 705 706	618 508 532 533	626 584 522 516	114 117 138 179	238 215 287 374
1928 lst Qr. Av 2nd ,, ,, 3rd ,. ,, 4th ,, ,,	518 649 594 628	76 71 80 99	491 511 548 554	353 344 347 367	354 350 351 351	508 568 532 543	680 727 738 698	507 526 539 535	502 539 451 484	579 612 575 616	718 770 682 602	515 497 515 484	523 523 515 513	441 460 454 457	593 629 563 554	533 565 527 527	703 708 698‡ 707	527 528 521 552	513 513 511 524	211 165 121 150	421 304 250 322
1929 1st Qr.Av 2nd ,, ,, 3rd ,, ,, th ,, ,,	571 627 541 538	89 80 83 101	489 558 611 559	386 373 372 367	384 390 385 384	549 532 512 512	699 685 588 517	511 474 474 474 440	504 491 461 485	616 637 625 642	570 572 491 458	473 443 406 352	521 521 521 521	471 460 444 430	550 549 508 506	526 520 487 482	704 688 668 656	567 564 553 550	526 530 526 528	189 117 99 151	415 226 216 346
JAN FEB MAR APRIL MAY JUNE.		100 82 87 74 73 80	488 469 525 515 512 496	362 354 349 344 347 341	384 384 383 381 376 362	511 476 463 487 483 413	491 413 319 319 339 374	413 413 385 365 338 275	504 482 486 504 500 540	612 600 588 583 588 588	448 435 410 397 353 340	269 314 308 300 300 288	519 519 519 519 513 513	385	489 485 475 471 460 468	466 452 448 445 437 425	636 620 608 604 593 583	548 536 525 522 510 509	530 523 528 524 519 523	218 219 192 182 190 185	466 457 385 372 367 322
JULY AUG SEPT OCT NOV DEC	516 627 534	52 53 58 60 70 89	541 514 549 562 469 404	337 341 344 338 335 347	359 359 359 356 344 344	413 404 361 352 339 339	321 321 313 305 293 293	269 275 253 244 254 248	465 453 453 442 395 380	575 563 575 550 500 550	325 325 367 362 343 316	294 373 362 362 373 365	513 513 506 506 506 506	351 339 333 328	436 433 449 438 405 402	410 407 415 405 380 378	572 579 571 555 554 535	507 505 507 512 512 482	516 508 515 499 498 494	170 188 196 218 253 313	342 376 395 446 534 642
1981 JAN FEB MAR APRIL MAY JUNE	477 547 430 480	71 75 74 67 74 76	395 364 432 411 432 436	352 343 344 341 341 341	336 335 334 333 309 309	339 357 348 328 308 300	257 243 237 260 246 232	260 256 250 219 200 208	393 404 385 409 417 371	500 500 450 463 450 425	305 292 314 318 311 322	354 354 356 356 352 345	506 506 506 506 506	317 313 306 292	390 390 380 392 389 372	370 368 365 360 350 347	521 515 517 514 506 498	463 450 446 449 447 442	488 494 496 497 489 488	355 378 370 357 358 338	723 765 707 670 635 574
JULY AUG. SEPT. OCT NOV DEC	441 500 484 403	59 60 60 65 73 82	468 429 460 458 381 366	338 338 334 319 307 289	315 322 320 322 323 308	293 255 241 270 263 260	219 219 200 191 246 237	225 215 215 214 203 193	345 356 363 367 378 401	425 413 425 375 400 425		346 352 354 367 315 301	506 506	286 279 283 284		344 339 338 325 331 334	495 490 487 491 489 486	438 441 445	486 481 477 473 474 473	378 402 447	638 693 748 800 878 983
JAN. FEB. MAR. APRII MAY JUNE	421 362 447 437 472	68 73 74 71 74 , 72	338 331 360 350 347	293 292 294 295 290 287	308 307 305 304 303	270 272 267 253 245 233	227 211 267 243 208	189 199 188 178 143	414 443 440 444 440	413 413 388	288 285 263	314 305	506 506 506	5 273 5 276 5 267 6 258	383 379 379 365	344 349 348 346 326 321		436 434 435 434	470 470 478 481 474 472	581 555 535 523	105: 114: 105: 100: 96: 90
JULY AUG. SEPT OCT. NOV. DEC.	420 391 339 433	74 73 76 85 83	352 365 371 386 347	289 281 284 282 276	292 287 290 2 288 3 287	226 282 280 256 259 252	206 206 231 228 227	140 148 159 150	369 385 400 404 418	387 362 362 388 388	228 235 260 270 230	299 280 281 281 278	500 500 500 500 500	6 259 6 264 6 256 6 255	326 343 354 354 345	320 324 317	451 455 456 456	407 407 412 419	462	5 499 5 504 2 515	94 94 95 103
1933 JAN				*278	10 57	256							5 50	6 253	345	*317	1	١,		1	1

xx Three types selected from data supplied by the Milan Chamber of Commerce. | Mid 1913. | 1 st half 1914. | sional. | Now Ministero delle Corporazione. | Subsequent figures based on movements of new Bachi Index. * Provisional.

TRANSPORT.

Shipping.

Railways.— PRICES WHOLESALE. Ottolenghi.—

Bachi.— PRICES RETAIL.

UNEMPLOYMENT.

Monthly Total of Goods nassing through Port of Genoa. (Boll. del consorzio autonomo del Porto di Genova—Boll. statistico del comune di Genova).

Monthly Total of Merchandise sent on the State Railways. (Rivista delle comunicazioni ferroviarie del Ministero delle Comunicazioni).

Wholesale prices of selected commodities at end of month. (Boll. del consiglio provinciale dell'Economia di Milano. e Listino ufficiale della Borsa merci del consiglio provinciale dell'Economia di Genova.).

General index.

Prices of certain selected goods. (Boll. del lavoro del Ministero dell'Economia nazionale).

Prices of the Cost of Living for working-class families (Boll. dellacitta di Milano e di Torino.).

Torino.). National Insurance. Data for end of month. (Boll. mensile dell'Istituto contrale di Statistica).

Italy]

duction was nearly the same in the two groups. The adverse balance was 1,450 Mn. in 1932, or a little more than in 1931—1,435. In December, 1932, there was a considerable rise, but this was artificial, due to the method of recording as for June and December miscellaneous items attributable to other months (as has been pointed out on previous occasions) and also the value of postal packets for the whole year. Certainly the change in the economic position is not evident in external trade, although Genoa shipping figures show a great increase.

The quantities of the chief items up to November inclusive, show the following variations compared with 1931: Wheat imports were 10 Mn. quintals instead of 14 Mn. owing to the good internal harvest, cotton 1,705,000 instead of 1,528,000 which is a good sign in regard to the cotton trade, as previously pointed out. There was a great rise in imports of raw and scoured wool, etc., from 387 to 622 and 45 to 56 thousand quintals and copper from 431 to 471 thousand. But that of coal fell, from 8,713,000 to 8,025,000 tons, also scrap and machinery. Of exports, citrous fruit fell from 3,815 to 2,700 thousand quintals, cotton tissues from 345 to 305 thousand, whilst cotton yarn slightly increased. The greatest reduction is in natural silk from 53 to 29.5 thousand quintals and artificial silk from 20.8 to 17 Mn. Kg.

Shipping, according to the Mercantile Marine, diminished to 30.3 Mn. tons in 1932, compared with 32.4 in 1931; but in the last months of the year there was an improvement. In December 2.6 Mn. tons were handled compared with 2.5 in the previous month and in December, 1931. The tonnage of goods inward through Genoa was 508,000 in December, the highest figure since June, 1931, and outward, 108 Mn., a figure which has not been recorded for many years. This confirms the change for the better in the economic situation.

On the other hand, railroad traffic continues to decline. Total goods handled in 1932 on private account amounted to 37 Mn. in place of 41 Mn. in 1931.

UNEMPLOYMENT.—The number increased further to 1,130,000 in December, or rather less

than the maximum last February, but more than in December, 1931; this would be a decidedly unfavourable sign, but in its interpretation, independent of the seasonal factor, account should be taken of the fact that the field of employment feels only the repercussion of the turn in the crisis which is shown more rapidly in other spheres. Further, it must not be forgotten that many outlets for emigration are now closed, so that the flow of emigrants is reduced. The outward movement was 83,309 in 1932, compared with 165,884 in 1931, and the inward movement, 73,213, compared with 107,744 in 1931.

DATA FOR JANUARY, 1933.

The chief feature of the month was a large rise in securities, government and other, which confirms the view set forth regarding the change for the better, in the field of credit and speculation.

The circulation which had risen to 13,676 Mn. at the end of December, resumed its downward course in January; according to the Bank of Italy's return for January 20th, it was then 13,212 Mn. and the gold reserve had risen further from 5,839 in December to 5,849 Mn. The discount rate was reduced from 5 to 4% on January 7th.

The lira remained firm; the average dollar rate fell from 19.55 in December to 19.53 in January, while sterling improved, from 64.16 to 65.54. The index of industrial shares at 108 showed an increase of 3 points on December, due to a general increase; but the great increase took place after January 25th, the settlement day, so that for the end of the month the index might be expected to be 5 points still higher.

On the other hand, wholesale prices behaved differently from securities, and did not conduce to a generally optimistic view. Based on prices in the third week of the month, industrial materials were stationary with the exception of silk which showed a further fall of 6 points which brings it to a minimum. There were opposite movements in grain and meat, the first rose from 418 to 422 while the latter fell from 412 to 387.

BELGIUM.

Information communicated by l'Institut des Sciences economiques, University of Louvain.

Jan. 30th, 1933.

In spite of the weakness of prices and certain reductions in the volume of business of late, the economic condition of Belgium seems to have pointed towards improvement since August. There was recovery until October-November, but it has suffered some setbacks. The fact of a return to the levels of the beginning of 1932 in numerous instances and the confirmation by various other factors enables us to state that we are clearly in the phase of depression, i.e., in statu quo; also certain movements of slight extent and of short duration tending towards improvement should be recorded.

The condition of the three markets remains favourable. The security market is firm though still without any great upward tendency, except a recent advance in state funds. Short-term money remains plentiful, the open rate falling even lower than the official rate; this is due rather to the difficulty of concluding transactions than to superabundance on the money market; for the general uncertainty still prevails and compels the enterprises of individuals to be assured of exceptional liquidity. Wholesale prices have, unhappily, fallen since September, but have not dropped to previous levels.

Retail prices have recorded a slight rise in recent months, owing to seasonal influences and more recently to the new indirect taxes.

The capital market is inactive.

The menace which threatened Belgian economy, the growing budget deficit, and the lack of curative measures before the legislative elections, has been parried by the establishment of a series of new taxes. The government has secured them by rapid measures. Amongst others there has been recourse to duties in the nature of an excise upon coffee, tea, ink, matches, etc., and increases in the transfer tax and income tax.

Industrial production was a little better in the last months of the year, thanks to orders received in September and October. The iron and steel trades and coalmining are again as active as at the beginning of the year. The improvement is even a little greater for rolling-mill products. Although exact data are difficult to obtain, it appears also that in various finishing trades, activity is greater than before. But this does not assist prices and the plaints of industrialists continue.

The figures relating to the labour market are those which appear most encouraging at the present time. Unemployment reached its maximum in February, 1932, and then showed a slow, but fairly regular, regression. The percentage fell from 25.2 to 20.4% by October, and in November was unchanged in spite of adverse seasonal influences. The ratio of vacancies to applicants at the labour exchanges is also a little better. Since April vacancies have been increasing.

Railway goods traffic increased in October and November, partly from seasonal causes. Activity has been maintained at the port of Antwerp since last spring.

External trade in its various aspects shows a tendency towards consolidation and even some progress compared with the low levels recorded in the summer. The value of imports and of exports have risen but have not yet reached the levels at the beginning of the year. Stationariness is more evident in the quantities, especially of exports, in which there has been no further reduction since the beginning of 1932.

As a result of the movements in sterling, the purchasing-power-parity between Great Britain and Belgium has again been displaced, to the advantage of the former. On the basis of 1914 it is about 120 while in 1929 it fluctuated around 95 and in the first half of 1932 about 110. It seems unlikely that the present rate can be maintained for long.

	SECU:	RITY		NATIO	NAL	ē.	er.	PRI	CES.	IM	POR	rs.	E	XPORI	is.	Ō.	UTPU	т.		
	% Share Prices.	Debenture Prices.	New Capital Issues.†	Current Deposits.	S Note Issue.	Sterling Exchange Rate.	Rate on Commercial Paper	% Wholesale.	% Cost of Living.*	Raw Materials.	Manufactures.	Total (with Food, &c.)	Raw Materials.	Manufactures.	Total (with Food, &c)	Coal Output.	Coal Stocks,	S Pig-iron Output.	Railway Wagons Loaded.	Unemployment. Days lost per 1,000 workers per week.
	19	28			Mn.fr	Fr. to £	%	Apr. 1914	1921		n. fran			n. franc		0,000		tons.	000	No.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1913				95	99	25.33	4-40			222	72	421	152	119	309	190	955	207	564	
1924				342	76	96.32	5.25	573	127	737	349	1476	386	645	1155	195	1151	234	508	93
1927 1928	112	100	527 1021	584 578	96 108	174·64 174·68	4·15 4·06	847 843	200 207	1266 1381	550 666	2428 2630	748 823	1281 1475	2225 2512	229 229	1846 1165	313 325	453 490	147 102
1929 1st Qr. Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	113 107 101 85	109 111 112 112	1500 1214 1193 1081	545 448 479 521	120 124 130 135	174·62 174·70 174·43 174·33	3·97 3·97 4·64 4·64	867 854 851 832	216 213 221 229	1416 1635 1608 1506	744 838 804 815	2720 3088 3039 2993	908 943 855 906	1313 182 2 1550 1604	2439 2987 2644 2739	229 222 213 231	79 42 30 30	329 338 340 339	478 515 529 550	254 41 63 89
1930 JAN FEB MAR APRIL MAY JUNE	76 77 67 74 76 72	113 113 114 115 115 116	1013 279 228 469 338 316	865 441 383 641 680 686	139 138 145 145 145 146	174·66 174·48 174·41 174·19 174·10 174·09	3·40 3·41 3·31 3·33 2·87 2·78	808 791 774 777 777 774 750	226 235 229 224 221 221	1429 1290 1376 1379 1368 1206	881 850 907 899 887 745	2943 2712 2899 2856 2874 2496	645 542 886 774 739 688	1384 1136 1651 1597 1401 1143	2211 1814 2766 2545 2295 2015	239 237 224 226 229 205	50 72 110 133 146 159	332 337 331 313 290 265	520 476 503 485 484 443	223 245 197 250 227 196
JULY AUG SEPT OCT NOV DEC	67 64 63 62 53 57	117 117 118 119 118 119	490 282 464 361 610 631	415 580 556 478 603 635	149 153 154 156 157 159	174·04 174·15 174·27 174·22 174·15 173·85	2·78 2·44 2·39 2·27 2·04 2·34	739 729 712 705 693 679	225 226 227 227 227 227 221	1196 1030 1109 1142 982 1062	784 716 695 735 621 675	2554 2334 2388 2529 2150 2351	734 613 690 692 615 550	1350 1175 1352 1354 1224 1227	2282 1944 2227 2222 2060 1960	213 222 220 230 238 230	172 185 198 222 239 248	252 239 251 241 248 262	459 443 464 507 466 462	256 310 334 388 492 630
1981 JAN FEB MAR APRIL MAY JUNE	. 58	120 120 120 121 121 121 122	35 160 370 271 291 145	1230 719 778 640 644 689	162 160 160 163 162 161	174·15 174·23 174·40 174·74 174·78 174·67	2·37 2·31 2·25 2·25 2·20 2·12	661 658 660 652 640 642	217 210 207 205 202 201	977 906 1083 980 1023 840	575 585 680 705 626 806	2063 1971 2309 2233 2111 2002	531 653 779 647 584 603	1043 1135 1196 1201 1101 1188	1764 2001 2158 2024 1861 2029	235 227 232 232 232 210 220	264 271 280 303 310 326	261 257 255 257 262 278	424 396 459 440 416 443	876 980 885 788 650 672
JULY AUG. SEPT OCT NOV DEC	54 48 43 40 39 34†	119 120 121 117 115 113	184 63 82 180 233 63	627 1276 1434 1055 1234 1549	166 168 168 179 179 179	174·09 174·25 162·98 138.90 133·55 121·07	2·14 2·41 2·44 2·44 2·44 2·44	635 616 597 591 584 573	201 199 201 199 197 192	895 850 883 902 778 758	594 565 583 564 498 513	1986 1856 1943 1957 1821 1727	626 580 710 688 633 598	1107 1011 1096 1063 993 876	1954 1773 2002 1955 1819 1641	222 219 221 218 217 206	336 338 336 342 347 354	280 289 284 263 262 237	446 424 445 481 430 367	775 730 810 900 940 1223
JAN FEB. MAR. APRIL MAY. JUNE	36 38 39 36 36 33 30	111 112 111 112 112 112 110	69 34 42 46 129 25	892 888 583 1071 962 1245	185 185 186 184 183 181	123·24 124·02 130·08 133·96 131·06 130·94	2·91 3·30 3·36 3·26 3·21 3·16	557 554 548 539 526 514	189 184 182 179 179 178	663 777 698 571 503 534	407 464 468 381 374 394	1460 1662 1533 1336 1226 1292	524 571 493 485 360 435	662 738 661 716 6 42 670	1342 1550 1324 1361 1142 1267	213 199 202 189 190 175	372 370 379 387 393 406	239 252 241 244 239 235	351 355 375 364 331 349	1487 1527 1515 1467 1303 1430
JULY AUG SEPT OCT NOV DEC	30 32 38 38 38 35 35	110 106 108 110 111 110	30 77 46 22 26	714 809 602 646 827 723	185 185 184 184 183 183	128:00 125:35 125:19 122:21 117:99 118:40	3·17 3·12 3·00 3·00 3·00 2·94	512 524 533 529 525 525	179 178 183 187 190 188	479 499 559 671 615	326 344 374 422 406	1126 1170 1255 1474 1381	336 350 430 485 426	597 590 603 726 659	1074 1127 1154 1331 1207	74 43 164 206 226 227	362 263 227 210 199 204	167 210 219 218 235 239	297 326 367 408 421	1437 1410 1387 1224 1236
1938° JAN	. 38	112																		
get splanskir.	1	¢	1	I	1	I	1	l	1		1 (11)	L	1	HILLE	158	I	1	1	1	

Dates of Series—Cols. 1. 2, 1st of month; 4, 5, 4th—10th; 6, 7. Average \$8, Average second half of month; 9, 15th; 16, for 25 working days; 17, at end of month or year; 18, 30-day month; 19, calendar month.

* Ministry of Labour index for 3rd category budgets
† Net issues since Jan., 1931.

Table contains certain alterations and revisions.

	STOCE	KS & S	HAR	ES.		K OF T		MON	EY.	PRIC	CES.		TRA	DE, OU	TPUT,	ЕМРІ	OYME	NT.	
	Stock Prices,	Yield on bonds.*	New Capital issues.	Yield of tax on stock exchange dealings.	Note circul tion.	Clearings.	Current accounts.	Bank rate.	Open market discount.	Wholesale prices.	Cost of living.**	Total imports.	Total exports.	Index No. of imported Materials (net),	Exports of finished products.	Goods handled in Port of Rotterdam.	Goods carried by rail (chief stations).	Output of Coal.	Unemployment.\$
	1921/25 =100	9/0	Mn. Gld.	0000 Gld.	,	Mn. Gld		%	%		Oct,23- Sep. 24 ≈100	Mn.	Gld.	1922/25 =100	Mn. Gld.	Mn. tons.	000 tons	000 tons	%
1913 Av.	90		29	30	316 975	2331	4·8 38·0	4.65 4.94	4.0	100 155	††	197	138	102	44.4	3.57		156 490	8.8
1926 st Qr.Av. ad ,, rd ,,	104 100 102 103	4·67 4·66 4·61 4·67	31 29 41 66	48 33 45 39	838 819 820 836	2604 2762 2871 3358	59·0 34·6 49·2 30·1	3·5 3·5 3·5 3·5	2.67 2.89 2.78 3.15	149 143 140 146	95·7 96·8 93·0 95·0	205 202 203 203	132 132 160 160	123 126 121 129	51 49 53 49	4·29 5·10 6·57 6·63	426 409 538 485	643 685 769 787	10·2 5·2 5·9 8·0
1927 st Qr.Av. ad ,, rd ,,	108 110 111 117	4·74 4·74 4·68 4·72	41 39 33 37	59 46 46 44	793 799 797 803	3243 3452 3168 3678	26.6 33.6 31.5 33.0	3·5 3·5 3·5 4·37	3·32 3·47 3·51 4·34	145 146 150 151	94·2 94·8 94·7 96·0	201 208 216 224	144 155 169 166	137 135 140 144	52 55 60·2 64·8	6·16 5·93 6·32 6·24	390 389 413 467	742 730 806 829	10.6 5.4 5.5 8.4
1928 t Qr.Av. d ,, h ,,	. 118 117 115 116	4·64 4·66 4·63 4·64	58 44 29 69	63 76 45 64	776 789 798 821	5682 3392 3299 3370	43·9 39·8 39·9 36·0	4·5 4·5 4·5 4·5	4·02 4·17 4·18 4·37	152 153 146 147	95·8 96·5 95·8 95·1	227 221 225 222	155 156 180 172	159 161 157 157	64·7 65·3 67·3 70·0	5·68 4·92 5·53 5·26	497 457 468 476	890 867 908 900	8·7 3·7 4·0 6·1
1929 t Qr.Av. id ,,	. 123 118 117 104	4·67 4·82 4·79 4·79	58 23 14 42	75 61 79 67	782 800 810 822	3742 3567 3518 3427	26·8 14·6 14·1 22·5	4.58 5.5 5.5 4.9	4·38 5·35 5·19 4·30	146 142 141 137	95·4 95·7 94·4 94·8	209 233 240 237	150 170 179 165	144 167 168 164	66·8 76·4 74·9 71·0	3·94 6·42 6·68 6·04	558 463 466 494	907 936 989 1010	15.5 2.4 2.5 5.6
1930 IN EB AR PRIL AY UNE	. 101 . 98 . 100 . 94	4·71 4·71 4·67 4·68 4·64 4·58	42 59 53 50 38 57	17 68 40 48 40 37	798 786 791 813 816 807	3505 3062 2973 3216 3462 2471	24·7 18·2 17·7 16·5 26·2 41·6	4·25 4 3·49 3 3	2·93 2·78 2·55 2·43 2·24 1·85	131 126 122 122 118 118	92.2	221 201 227 204 224 201	152 145 156 142 151 135	168 160 159 154 163 159	66:3 69:1 73:5 64:1 67:9 55:6	7-38 4-81 5-67 4-89 4-86 5-04	467 429 449 416 436 408	1060 985 997 977 1017 916	11·7 9·8 6·7 5·4 4·8 4·3
JLY UG EPT OV EC	77 74 74 71	4·56 4·52 4·49 4·46 4·51 4·50	73	37 32 37 47 38 31	807 804 812 817 826 819	3685 2772 2832 3053 2994 2963	15·2 24·5 13·1 54·2 30·5 25·8	3 3 3 3 3 3 3	1.91 1.83 1.97 1.58 1.27 1.44	115 114 112 111 110 107	}91·8	204 199 196 198 181 165	145 153 147 151 126 117	151 134 123 122 127 132	62·1 59·0 56·1 62·7 52·1 51·6	4·94 5·20 5·11 5·31 4·25 4·40	447 415 437 471 475 438	1097 1010 1052 1101 987 1013	5·2 5·8 6·5 7·8 10·2 15·1
1931 AN EB AR PRIL AY UNE	64 69 69 64 57	4·49 4·46	8	50 41	814 807 818 826 848 850	3074 2609 2850 3021 3021 2890	22·3 28·2 18·7 17·0 17·4 33·1	2·87 2·5 2·5 2·5 2·24 2	1:37 1:11 1:10 1:39 1:40 1:04	105 104 103 102 102 100) 87·4 }86·9	179 150 167 169 161 163	118 109 116 119 112 103		50·7 49·4 48·1 47·3 43·5 39·4	5·16 3·81 3·92 4·49 3·87 4·31	457 400 437 433 379 405	1058 938 1077 1060 997 1106	19·2 18·7 17·9 11·6 9·8 9·3
ULY UG EPT CT OV	. 49 . 39 . 38 . 40		26 20 2 - 6 12	16 31 31 26	989 1047 1038	2483 1721 1958 2006 1594 1680	80·8 170·5 174·8 170·6 188·2 192		1·41 1·28 1·01 2·74 1·67 1·47	97 94 91 89 89 85	} 85·6	153 160	115 107 120 111 101 81	123 117 119 117	47·4 40·6 45·1 42·8 44·4 36·4	4·42 3·77 3·52 4·00 3·57 4·06	479 429	1167 1068 1121 1156 1085 1069	10.6 10.6 12.8 14.8 18.4 22.6
1932 AN EB IAR PRIL IAY UNE	35 34 27		9 13 15 3 1 80	20 25 27 18	979 967 974 997	1693 1481 1530 1668 1388 1166	123 99 107 152 162 235	3 3 3 2.8 2.5 2.5	2·09 1·89 1·21 1·00 ·74 ·52	82 80 79	79.9	116 113	70 76 73 69 64 66	114 111 103 95	29·4 34·3 30·5 26·7 24·7 25·1	2.65 2.61 2.91	371 371 366 317	997	25 (23 (22)
ULY SEPT OCT NOV	34 38 36		5 12 19 58 29 18	30 39 48 3 32 26	989 988 979 977 963	1384 1254 1271 1230 1274	250 266 279 243 287	2·5 2·5 2·5 2·5 2·5 2·5	·48 ·37 ·37 ·37 ·37 ·37	75 • 76 77 77	}79·9	96 95 102 117 106 107	67 67 77 82 70 68	7 89 7 89 2 98 3 102	25·1 27·2 26·4 33·1 27·8 27·7	2.69 2.79 3.06	347 333	1043	25· 25· 25· 25·
1933 JAN		1			947	4	270		1				1						

^{*} State and community, actual figures. ** Amsterdam. † Without gold and silver, bullion and cash. † Last month of Quarter. \$ Number of days worked divided by total number of possible working days of the workers covered in the investigation.

1. Excluding Pottery and Agriculture.

NETHERLANDS.

Information communicated by the Netherlands Central Bureau of Statistics.

REVIEW OF THE YEAR 1932.

THE economic situation of the Netherlands, during 1932, was naturally governed in many respects by developments abroad. In this country also the depression reached its lowest point about the middle of the year, and conditions have since somewhat improved, though positive indications for an actual upturn are still lacking. These developments are clearly shown by various indices, such as the indexnumber of share quotations, the weights of imports and exports (especially imports of iron and steel), shipping statistics, etc.

The index-number of share quotations fell from 40 in November, 1931, to 24 in June, 1932, but recovered sharply to 38 in September. Since, there has been a gradual decline, bringing this

number down to 34 in December.

Imports (weight), as normally, reached bottom figures in February, but instead of showing a sharp seasonal increase, they remained small till May. After that month a definite recovery set in, and continued till the end of the year, whereas a marked seasonal decline is normally to be expected in the latter half of the year; in December imports were only slightly smaller in weight than a year ago. Exports remained small till August, but the last four months showed an increase, likewise in contrast with seasonal movements. Traffic at the ports reflected these movements more or less, especially at Amsterdam and the smaller ports.

Consumption of iron, as measured by im-

ports plus home production less exports, reached a low mark in spring and showed a marked increase since.

Other figures, however, such as transfers by the Netherlands Bank, show hardly any signs of improvement. Unemployment increased during 1932. The seasonal improvement in activity has, this year, been very slight. In the metal trades the total increase of unemployment was small, but the level remained high, 35% on the average. In the textile group there were great fluctuations and top figures in July were followed by a steady decrease till October, when a new rise began. Figures, however, were continuously higher than last year. In the building trades, after a small seasonal decline in the summer months, unemployment showed a sharp increase till the end of the year. The figures for public tenders exhibit no signs of improvement.

At the beginning of the year the money market was still under the influence of financial difficulties abroad, but the abundance of money in this country is shown by the fact that the highest monthly averages of private discount and collateral loan rates were only 2.09% and 2.37% respectively, while since March collateral loan rate has been steady at 1% and private

discount at 0.37%.

All in all, it seems that the slight improvement which may be seen abroad is yet hardly reflected in the available figures for this country.

CANADA.

Information communicated by Mr. D. C. MACGREGOR, of the University of Toronto.

In common with the rest of the world, this country seems to have entered upon a period of at least temporary stability in the volume of economic activity. The first signs of this stability appeared in the adjusted indices of employment and carloadings which during September responded to the larger volume of agricultural output in Western Canada. By November, the composite index of industrial production had risen slightly. The improve-

ment of conditions lies, not in an absolute increase of business activity, but rather in the absence of any further serious losses. It has been spread fairly evenly over the eastern and central parts of the country, but in the prairies, where the upturn was most noticeable at the end of the third quarter, the approach of winter has been accompanied by further retrogression.

Notwithstanding the virtual exhaustion of the recuperative forces generated in the west, a more genuinely confident tone seems to have underlain business sentiment. The possibility that new financial disturbances may arise out of the existing maladjustment of prices, in spite of the maintenance of the present physical volume of activity, does not seem to be causing much apprehension as yet. But as such an outcome seems inevitable, and as a great part of the favourable conditions, both internal and external, which gave rise to the improvement during the autumn, has recently subsided, it is doubtful whether the gains of the last quarter can be maintained for very long in the absence of favourable developments abroad.

The comparatively great stability of income, and the financial liquidity, of the large rentier and salaried classes in central Canada is of particular significance at the present time. On the one hand it provides an almost constant flow of purchasing power which has helped to maintain local business and employment at a higher level in Toronto, Ottawa and some smaller Ontario cities, than elsewhere. It has also provided sufficient savings for the financing of government deficits. On the other hand it is obvious that the income of these classes constitutes the principal burden on the country at large in a time of deflation. In spite of the fact that Canada as a whole is a debtor nation, central Canada is a far more important creditor of the country at large than any foreign power. Most of the strains between debtor and creditor nations now exist between this area and the insolvent west. Federal policy, which has been concentrated on keeping up appearances in New York, is being forced to become more and more concerned with this internal relationship. Thus far it has relied chiefly upon the extension of credits to embarrassed governments, based upon the federal borrowings of savings from the creditor area. As the two old parties in Parliament derive their great strength from Ontario and Quebec, and are chiefly influenced by them, the policy of Ottawa will no doubt continue to temporize by further increasing the mortgage which eastern rentiers now hold upon the national income. That certain eastern interests have already lost heavily because of the inability of western farmers to meet their mortgage payments, and that similar losses are becoming all. too common in most parts of the country, (aggravated by the existence of moratoriums), seems to be overlooked, though it portends

FINANCE.—A gradual weakening of prices in both the commodity and the security markets

occurred during the last quarter. The flotation of new bond issues came to an abrupt and unprecedented halt for a period of two months after the recent federal offering of \$80 Mn. at $4\frac{1}{2}\%$, at the end of October. The recent sale of a Province of Quebec long-term issue at $4\frac{1}{2}\%$, which was taken up immediately, marks the resumption of activity in bond sales. Corporate bond issues now in default in Canada are reported to involve a principal sum of \$420 Mn. While the largest defaults in 1931 were in the pulp and paper group, the defaults of public utilities and miscellaneous industrials were of more importance in 1932. A large number of small real estate issues (apartments, hotels, &c.) also appears in the list, but in contrast with experience in the United States, the total sum involved is not great.

The contraction of bank loans has continued with only a slight seasonal interruption in October. The total reduction effected in 1932 was almost twice as large as in the previous year. The associated rise of security holdings which began at midsummer was augmented by the purchase of \$35 Mn. of 4% notes from the federal government which were subsequently presented to the Department of Finance as collateral for a loan of equal amount under the Finance Act, at 3%. The latter transaction has raised the holdings of Dominion Notes by an equivalent amount.

From September 30th to November 30th, the total deposits by the public increased by \$11 Mn., while deposits by the federal and provincial governments increased by \$90 Mn., making a total increase of \$101 Mn. In the same period the aggregate of loans and security holdings increased by \$51 Mn. No significant change has occurred in the domestic gold holdings of either the banks or the government, which continue to stand at the levels of last summer. The aggregate turnover of bank deposits, measured by the statistics of debits to individual accounts, did not undergo as large a rise as might have been expected last autumn. This series has behaved most erratically, in some months almost equalling the 1931 levels, and in others falling far below them.

PRICES.—For the third consecutive month, wholesale prices have declined. Since September this decline has amounted to $4\frac{1}{2}\%$. The losses have not been confined to agricultural products, but fairly evenly spread over six of the eight principal groups. The spread between the prices of farm products and manufactured goods continues to widen. The decline in the

		***************************************	FINA	ANCE.				PRI	CES.		7	TRADE	AND	PRODU	UC 1101	ν.	EMI	LOYM	ENT.
	Common Stocks.	Ontario Bonds. Index of Yield.	All Bond Issues.	Bank Debits.	Current Loans, Discounts, Call Loans.	, Total Deposits in Canada.	Canadian Farm Products. (59)	Manufactured Goods. (276)	All Commodities (502 Items).	Cost of Living.	Imports for Home Consumption.	Exports and Re-exports.	Exports—Farm Produce,	Industrial Production. ‡	Car Loadings.	Retail Sales Index.	Construction and Maintenance.	Manufacturing.	General.
1000	% 1	%	\$ Mn.		10 Mn.	10 Mn.	% 7	% 8	%	%	\$ Mn.	ľ	\$ Mn.	% [.]	000	% 16	% <i>17</i>	1 10	%
1926 Average 1926	100	100	0	4	9	В	100	100	100	100 100	.11	12	10	100	10	10	100	18	<i>1</i> 9 100
1st Qr. 2nd Qr. 3rd Qr. 4th Qr. 1927	94 93 100 103	100 100 100 99	59 51 43 24	227 258 241 286	108 114 117 121	186 188 188 196	103° 101 98 98	102 100 99 98	102 100 99 98	101 100 100 99	81 82 88 86	96 91 99 142	52 52 53 95	97 99 99 105	232 256 276 324		65·5 113 133 92	94 101 104 100	92 100 106 101
1st Qr. 2nd Qr. 3rd Qr. 4th Qr.	110 117 126 140	97 95 95 93	29 64 41 67	250 283 271 398	116 128 130 139	194 197 196 211	99 104 104 102	97 97 96 96	98 98 98 97	99 98 98 99	88 90 94 90	91 99 92 131	47 57 45 87	105 105 105 107	257 266 282 331		71 120 147 100	100 106 107 102	96 106 111 105·5
1928 1st Qr. 2nd Qr. 3rd Qr. 4th Qr. 1929	148 157 154 179	89 90 95 95	22 77 15 37	324 380 326 419	145 156 154 159	211 219 215 224	104 107 96 96	96 95 95 94	97 98 95 95	99 98 99 100	95 101 108 103	95 97 118 151	51 54 69 101	113 116 123 119	273 282 321 359		76 132 158 113	104·5 112 115 112	102 113 119 115
1st Qr. 2nd Qr. 3rd Qr. 4th Qr. 1930	. 188 . 206	99 103 103 103	38 76 20 84	384 378 371 423	163 169 174 182	218 216 217 220	97 94 108 104	93 91 94 94	95 94 98 96	99 99 100 101	110 112 108 103	100 97 98 108	48 46 42 54	136 127 125 121	265 301 322 290	110 133 123 149	81 141 177 122	115 120 121 112	110 121 127 118
JAN FEB MAR APRII MAY JUNE		102 102 101 101 101 101	49 55 56 31 106 70	321 281 309 308 343 340	173 170 170 170 169 166	208 206 206 208 201 203	103 98 91 93 92 86	93 92 91 90 89 87	95 94 92 87 85 83	102 102 102 100 100 100	85 81 113 71 102 92	75 68 92 53 80 81	27 27 36 28 22 37	132 117 108 110 112 105	242 232 258 244 279 269	99 95 107 124 131 114	88 84 86 112 137 170	110 111 111 112 114 111	112 110 108 111 117 119
JULY AUG SEPT. OCT NOV DEC	132 125 131 111 110 103	100 96 93 94 94 94	47 49 32 157 70 47	309 280 297 362 297 301	162 160 160 158 152 148	201 200 209 206 208 207	80 76 71 70 66 62	86 85 85 84 83 82	79 84 82 81 80 78	99 99 97 97 97 96	85 78 88 78 76 60	78 71 82 84 74 68	35 33 43 46 42 31	106 107 103 100 100 97	264 281 303 308 250 205	103 104 110 123 115 154	180 169 163 149 127 111	110 108 108 105 101 94	119 117 116 113 109 102
JAN FEB MAR APRII MAY JUNE	. 107 112 111 97 81 80	95 95 93 93 92 92	120 27 43 56 671* 52	267 253 257 279 317 269	146 144 144 141 147 144	199 198 202 205 204 205	61 61 59 59 58 56	79 79 78 77 75 74	77 76 75 74 73 72	95 94 92 92 90 89	50 51 75 51 73 52	46 45 56 35 61 55	18 19 22 11 30 26	96 99 101 93 93 84	204 190 210 214 216 222	92 86 100 116 115 107	105 101 97 107 122 137	96 98 100 101 99 97	101 ** 100 100 102 104 104
JULY AUG SEPT. OCT NOV DEC	84 81 69 65 72 65	93 92 97 103 104 109	7 2 51 1 221† 2	240 224 245 259 284 264	142 143 145 145 142 139	201 203 205 204 201 194	55 54 53 53 56 54	74 74 73 72 73 73	72 71 70 70 71 71	89 89 88 87 87 87	48 47 45 46 47 40	51 50 50 57 58 54	21 21 22 28 34 28	90 87 91 85 86 80	207 206 227 265 231 185	95 92 99 111 103 142	163 177 164 165 129 105	95 95 92 89 9 0 84	105 107 104 103 99 92
JAN FEB MAR APRIL MAY JUNE	65 63 64 54 46 43	120 116 110 111 113 114	46 21 36 12 26 21	207 199 202 207 217 220	138 139 139 138 136 132	188 189 188 190 188 186	52 52 52 51 50 48	72 71 72 72 71 70	69 69 69 68 68 68	85 84 84 84 82 81	34 35 57 30 44 41	39 37 41 27 41 42	17 17 16 11 20 19	80 81 77 68 75 77	166 174 183 180 183 185	79 75 86 94 92 93	90 83 80 83 93 93	86 87 87 86 86 86	90 89 88 88 89
JULY AUG SEPT OCT NOV DEC	50 59 63 55 55 53	111 103 102 98 102 103	27 9 73 104 1	218 212 210 237 247 208	129 126 126 128 125	182 184 184 186 185	48 48 47 45 44 43	70 71 71 69 69 68	67 67 65 65 64	81 81·5 81·5 80·5 80·5	35 37 38	43 42 43 57 47 47	24 22 25 35 26 26	74 74 72 70 72 68	157 176 216 212 193 153	82 74	90 90 84 84 78 68	83 83 83 84 82 80	86 86 86 87 85 83
1933 JAN * I	nclude	s Fede	19 eral Co	nversi	on Loa	n.	† Ir	cludes	Feder	al "N	1					New in	32	74 p. 25.	78

Dates of Series:—Cols. 5, 6, 17-19, end of month; 7-10, averages.

Notes on Series.

Col. 1.—Weighted Average of over 100 stocks.

4.—From 32 Banking Centres, comprising about 85% of total debits.

5.—Includes loans to governments.

6.—Excludes government deposits.

14.—Adjusted for seasonal variation, includes 41 weighted series.

Col. 15.—Revenue freight only; excludes cars from U.S. connections.

16.—Index of value, includes 2,700 chain store outlets and 25 departmental stores.

Establishments with over 15 employees. Excludes agricultural and civil servants.

Canada]

price of wheat to the lowest recorded levels has undoubtedly been the most serious event in this new episode of deflation. Only a very trifling decline in the cost of living is recorded for November. It is noteworthy that the sub-index which includes the retail prices of 132 miscellaneous goods and services has only declined 3.4% since 1926.

TRADE.—The value of Canadian exports, which had been sustained by the large outward movement of wheat throughout October, decreased again during November. The successive twelve months' totals are not, however, declining as rapidly as a year ago. The most striking trade figures for the last quarter are those for import values, which continue to be about ten million less each month than in the corresponding month of 1931. Imports are now reduced to only 35% of the level of 1929. Owing to the renewed decline in the value of exports, the visible balance of trade has not increased for the most recent twelve-month period.

REVISED INDEX OF PRODUCTION.—The new official index of the volume of industrial production includes 41 series, instead of the 24 hitherto employed. It should be noted that 18 of the series used are not figures of production, but of exports or imports, while the three series for tobaccos represent shipments from bonded warehouses. The series is adjusted for seasonal variation.

This new index, which had recovered substantially in May and June from the collapse of the preceding two months, thereafter declined steadily until November. The four constituent group indices are now as follows (1926—100):

형제 2014년 대학생 기업이 있다.	Nov.	Nov.	Nov.	Nov.	
	1929	1930	1931	1932	
Manufacturing	115.5	88.4	79.2	72.3	
Mineral Production	111.5	93.2	89.1	86.4	
Construction	168.7	140.4	94.0	37:3	
Electric Power Output	148.7	140.7	131.4	134.4	

The relatively high mineral production is noteworthy. It is chiefly due to the increased output of gold and the maintenance of coal production at last year's levels. The index of lead production has also been a buoyant factor and has held steady at between 85 and 90, of financial authorities.

but zinc exports have fallen away seriously since the summer. It is not known to what extent stocks of zinc and copper are being accumulated by producers. The index of employment in the mining industry is also relatively high, but as much part-time work is being done, the index does not show the amount of full-time employment being provided.

Since the summer, no further decline has occurred in the volume of new construction work. As might have been expected, the output of foodstuffs and textiles has been well maintained. The output of automobiles has been insignificant, but the sustained imports of petroleum show that the consumption of gasoline has not declined more than perhaps 20% for the whole year. The new U.S. tariff on lumber, imposed last summer, has further weakened the position of that industry, which is now operating at 20% of capacity in British Columbia.

EMPLOYMENT, &c.—After allowance for seasonal changes, the index of employment has not declined since midsummer. Its stability closely parallels, and has preceded, the stability of production. The adjusted indices for the provinces show a slight improvement in the Maritime Provinces, Quebec and Ontario, but a significant decline in the Prairie Provinces and British Columbia. The province of Quebec seems to be the only one whose employment has benefited by the tariff.

The adjusted index of railway carloadings has held its level and even risen a little. A large part of the continued decline of retail sales, as compared with 1931, may be accounted for by lower retail prices. While the general index stands at 94·1, the index for department stores stands at 109·5, boot and shoe stores at 77·0, groceries and meats at 88·9, confectionery at 67·8, furniture at 58·4, and music and radio at 39·0.

Roughly one-fifth of the public expenditure of the country continues to be financed by borrowing. A general belief that higher prices will shortly come about, combined with a stubborn opposition towards any efforts to achieve that end, seems to sum up the wisdom of financial authorities.

ROYAL ECONOMIC SOCIETY

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- No. 2. REPORT ON CURRENT ECONOMIC CONDITIONS. July, 1927.
- No. 3. STOCKS OF STAPLE COMMODITIES, by J. M. Keynes and J. W. F. Rowe. September, 1927.
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- Nos. 5. 7, 9, 10. Reports on Current Economic Conditions. Jan., April, July, Oct., 1928.
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- No. 39. Report on Current Economic Conditions. January, 1933.
- No. 40. REPORT ON CURRENT ECONOMIC CONDITIONS IN EUROPE. February, 1933.

ROYAL ECONOMIC SOCIETY

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MEMORANDUM No. 41

REPORT ON CURRENT ECONOMIC CONDITIONS

April, 1933

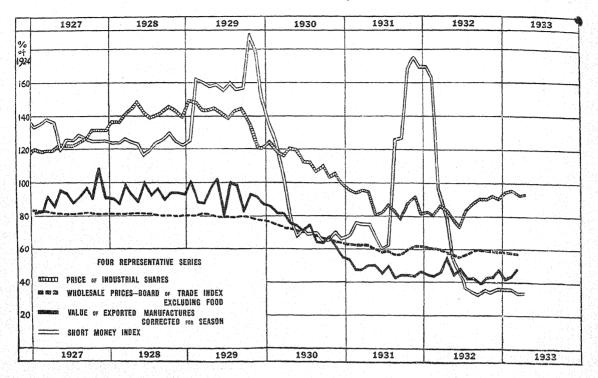
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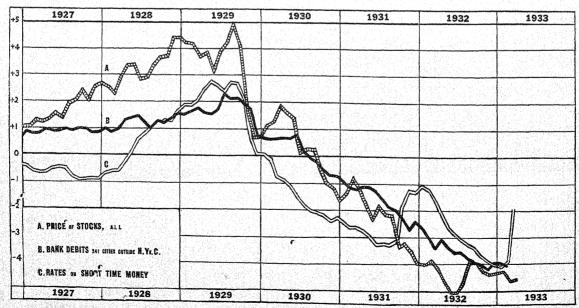
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HARVARD INDEX CHART, U.S.A.



For Harvard Cable see p. 22.

THE GENERAL BUSINESS POSITION.

UNITED KINGDOM.

April 20th, 1933.

The sudden development of monetary policy in the United States may be expected to have far reaching effects on the course of dollar, sterling, gold and other prices, as well as on the exchanges. There has been as yet no clear statement of policy, and the local interests in America may diverge from those of the rest of the world. For a short time at least the uncertainty of the position is likely to check enterprise and increase the instability of international prices.

There is an increasing realisation of the necessity of taking definite steps to restore international credit and trade, and the renewed hopes that the Economic Conference may be effective are not necessarily diminished by this latest development. It is unfortunate that at this critical time European trade is disturbed by the embargo on Russian imports, which may affect adversely the German balance of payments.

In the United Kingdom the remarkable stability at the present levels of production and of wholesale and retail prices continues. The statistics for March of trade, production and employment indicate that rather more than the usual seasonal improvement is taking place; in particular the output of steel is relatively high, shipbuilding has recommenced, and there is building development, even before the Government's plans have matured. But there is little new enterprise, and the rise of the price of fixed interest securities indicates that there is still an increasing surplus of idle funds.

ANALYSIS OF RECENT MOVEMENTS

UNITED KINGDOM.

April 19th, 1933.

FINANCE.—During the four weeks ended April 12th, the Bank of England acquired through the Exchange Equalisation Fund a further £13 Mn. of gold (part of which, it is believed, consisted of gold recently imported from South Africa) and increased its total gold holdings to £179 Mn. In view of the strong gold position, the fiduciary note issue was allowed to return at the end of March to its normal level of £260 Mn., at which it stood prior to the temporary increase to £275 Mn. in June, 1931.

If the return for January 18th—the last before the Bank began to acquire gold—is compared with that for April 12th, it appears that, of the increase of £59 Mn. in holdings of gold, £15 Mn. has been offset by reduced holdings of securities in the Issue Department, and £31 Mn. by reduced holdings of securities in the Banking Department. The balance of £13 Mn. is substantially less than the £21 Mn. increase (apparently only partly seasonal), in the note circulation, and total deposits have therefore fallen by £8 Mn. to £142 Mn. Since Government Deposits have risen over the same period by £6 Mn. and other deposits by £2 Mn.,

Bankers' Deposits have fallen by £16 Mn., the figure for April 12th being £89 Mn., compared with £106 Mn. on March 15th and February 15th, and £105 Mn. on January 18th. This fall in Bankers' Deposits would, prima facie, appear to indicate that at least a temporary halt has been called in the process of credit expansion, but in view of the erratic fluctuations of the past few weeks and of the Bank's continued large purchases of gold, it will be necessary to await the confirmation of further statements before drawing definite conclusions.

Clearing Bank averages for March show a much less than normal expansion in Advances, but a smaller percentage decrease in Discounts than is usual at this season, and a further substantial increase in Investments. Deposits fell by £31 Mn. or 1.6%, which is 0.4% less than the usual seasonal decline. After adjusting for seasonal movements, there was, therefore, a further small expansion in deposits. Total cash holdings showed only a slight decrease, and the ratio of cash to deposits rose by p.1% to 10.8%.

The total of Treasury Bills outstanding continues to decline, partly owing to issues of $2\frac{1}{2}\%$ Conversion Loan, and short money rates remain



exceedingly low. Long term interest rates have now moved in sympathy and are at the lowest point recorded since last October, but Industrial Shares show only a very slight improvement. March issues of new domestic capital showed a marked improvement and at £12.3 Mn. were the highest since last June, but issues for overseas remained very small.

Town Clearings in March showed a considerable increase both in the crude and in the seasonally adjusted figures, while Country Clearings declined by about the normal seasonal amount. Provincial Clearings decreased rather sharply, almost all centres showing a decline.

Imports of gold during March were valued at over £24 Mn. (or nearly £26 Mn. if the specie imported is valued at its bullion and not at its face value) while exports were only £4.5 Mn. Besides £7.5 Mn. from South Africa and £2.6 Mn. from India, £2 Mn. was imported from France, £3.4 Mn. from U.S.A. and £4.7 Mn. (or over £6 Mn. at bullion value) from Australia. The principal exports were £2.3 Mn. to Holland and £1.1 Mn. to France. Net imports for March totalled over £21 Mn. at present prices or about £15 Mn. at par. During the same month the increase in the Bank of England's gold holding was about £22 Mn. at par.

PRICES.—The movements of prices from February to March were slight and the evidence is conflicting. The Board of Trade shows a fall in all categories except metals, when the average for March is compared with that for February. The Statist gives a rise for animal and miscellaneous food and for minerals and textiles balanced by a fall in vegetable food and sundry materials. The Statist figures relate to the last day of each month, but the Board of Trade weekly series, as in the following table, shows that this fact does not reconcile the figures.

INDEX-NUMBERS OF WHOLESALE PRICES.

	_(% of S	ept., 1931).	
	United I	Kingdom	United States
	Board of Trade	Financial Times	Irving Fisher
Feb., 1st wee	k 101·2	100.7	80.2
2nd ,,	100.5	100.2	80.5
3rd "	100.2	100.4	79.3
4th ,,	99.9	100.0	79*9
Mar., 1st .,	99.5	99 [.] 1	79.7
2nd ,,	99-2	98•9	
3rd	99-1	99·1	81:3
₹4th .,	99.3	99.6	82.1
f 5th	98.9	99-2	81.8
April, 1st	· —	98.7	81.5
2nd	• —	£9·2	82.4
3rd ,.		99.3	00.0

It will be noticed that the United States

prices show an upward tendency.

The Cost of Living Index number fell as is usual in March, with the decreased price of butter, eggs, etc. Over twelve months the food index has fallen 40%, while the wholesale price

of food, according to the Board of Trade, fell 12%.

TRADE AND OUTPUT.—Imports of food, of materials and of manufactured goods increased in March rather more than was to be expected from the greater number of days than in February and from the season, but none of the changes was unusually large. Both for food and materials the exact date of import varies from year to year and it is better to deal with the first three months together as on p. 7.

Exports of manufactured goods show a definite increase; the total value was 5% greater than in March, 1932, in spite of some fall in prices, and very nearly as great as in March, 1931. The increase over last March, however, is entirely accounted for by the sale of one 22,575-ton ship valued at £1,200,000.

The more detailed changes in the three years are interesting.

VALUE OF EXPORTS OF MANU	JFACTU.	RED GOO	DDS. £Mr	١.
[위의 [위기] [기기 기기	March,	March.	March.	
	1931	1932	1933	
Textiles and clothing	9.7	10.3	10.3	
Metals, machinery, cutlery, electrical goods Vehicles, &c Ships Other goods	7:5 1:8 1:0 5:7	6·7 1·4 0·1 5·7	6·7 1·7 1·2 5·5	
Total	25.7	24.2	25.4	

The smallness of change in these numbers is very remarkable.

The outputs of iron and of steel have again increased. That of steel was greater in March than in any month since September, 1930. There was a slight seasonal fall in coal output, though there was an improvement in its export.

Unemployment.—There was a general improvement in employment in March. particular the building and contracting trades employed 66,000 more men, a greater increase than is usual in March (see "Bulletin," March, 1933, p. 79), so that employment was relatively better than last August and little more than in March last year. Apart from an increase in the number of miners temporarily stopped and a slight falling-off in textiles, the improvement was general, and for males greater than has been normal in the month of March. Compared, however, with a year ago the percentage of all insured persons unemployed in the United Kingdom has risen from 20.8 to 22.0, and if allowance is made for the effects of changes in administration (which were not complete last March) the increase is slightly more. In the same twelve months the estimated numbers of insured persons at work decreased from 9,517,000 to 9,443,000 in Great Britain.

Some of the recent changes are as follows; for others see the Table on p. 21.

INSURED PERSONS UNEMPLOYED. (000's).

Feb.					
	Tempo-		1	Tempo-	
Vholly 227 399 15 60 1344			Wholly 224 348 15 59 1323	rarily 101 12 13 38 206	All 325 360 28 97 1529
2015	376	2421	1969	370	2339
11 77 261	21 52 72	32 129 333	11 78 252	20 59 62	31 137 314
349	145	494	341	141	482
2394	521	2915	2310	511	2821
	Vholly 227 399 15 60 1344 2045 11 349	Tempo Vholly rarily 227 72 399 27 15 15 8 60 36 1344 226 2045 376 11 21 5 77 52 261 72 349 145	227 72 299 399 27 426 15 15 30 8 60 36 96 1344 226 1570 2045 376 2421 11 21 32 8 77 52 129 261 72 333 349 145 494	Tempo- Vholly rarily All Wholly 227 72 299 224 348 15 15 30 15 56 60 36 96 59 1344 226 1570 1323 2045 376 2421 1969 11 21 32 11 577 52 129 78 261 72 333 252 349 145 494 341	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$

UNITED STATES.

During the last month, conditions in the United States have shown all the signs of a rapid recovery from the recent banking crisis. Under pressure of the anti-gold-hoarding law a very large amount of gold flowed back to the Reserve Banks, whose holdings of gold on April 19th at \$3,366 Mn. were appreciably larger than the total of \$3,259 Mn. held before the crisis, while the value of Federal Reserve Notes in circulation fell from \$4,293 Mn. on March 15th to \$3,477 Mn. Meanwhile the great majority of banks have reopened, and general business, which was naturally severely curtailed during and immediately after the closure of the banks, has recently been show-

ing some signs of recovery, though the immobilisation of a considerable proportion—perhaps as much as 10%—of the pre-existing total of deposits has naturally continued to exercise a seriously depressing effect in many areas.

Meanwhile the popular demand for some kind of inflation to raise the internal price level has been gaining strength, and is probably a direct cause of the reimposition on April 19th of the full embargo on gold exports and the commencement of the rapid depreciation of the dollar in terms of sterling and gold currencies. Since the United States holds intact an enormous gold reserve, and appears to have a distinctly favourable balance of trade and of normal payments, it seems clear that the abandonment of the gold standard is the result of a deliberate act of policy, apparently designed to facilitate the raising of internal prices by some sort of inflation. Even if the attempt to raise American prices succeeds—and maintained success is by no means certain, for the experience of the last few years has shown that it is easier to depreciate the currency than to raise internal price levels it is not unlikely that the rise will lag behind the depreciation of the dollar, and so fail to bring about any general recovery in world If the attempt fails, the artificial depreciation of the dollar will tend to cause some depreciation of prices in other countries.

FINANCE, TRADE AND PRODUCTION IN THE UNITED KINGDOM IN THE FIRST QUARTER OF 1933.

INANCE.—The first quarter of 1933 was marked by a heavy inflow of money from abroad, due largely to increasing nervousness regarding the financial situation in various foreign countries. Sterling rose to over 70% of its par value, at which point the rise was checked by the action of the Bank of England in purchasing large quantities of gold, the difference between par and market values being met out of the Exchange Equalisation Fund. The Bank's acquisitions of gold, amounting during the first quarter to about £52 Mn. at par or about £73 Mn. at market price, have so far been largely offset by sales of government securities, and by a reduction of the fiduciary note issue from £275 Mn. to the former level of £260 Mn., so that the volume of central bank credit is at present little greater than in December last. The effects of last year's credit expansion have

continued to show themselves in very low interest rates both on short and long term. Prices of industrial shares have been on the whole well maintained, and new Capital Issues for domestic account have been above those for the first quarter of 1932, though below those for the second and fourth quarters; issues for overseas account were, however, very small. Town clearings were rather higher than in the first quarter of 1932 while country and provincial clearings were about the same.

PRICES.—Following a period of stationariness in the last quarter of 1932, wholesale sterling prices, especially of materials, fell slowly in the first three months of 1933, the fall being interrupted by stationary periods and even slight increases. The movements have been similar on the whole to those of wholesale dollar prices, but the latter moved irregularly in March owing

SUMMARY OF QUARTERLY STATISTICS.

		1930			19	31				32		1933
TOTALS	2nd	3rd	4th	lst	2nd	3rd	4th	lst	2nd	3rd	4th	lst
	Qr.	Qr.	Qr.	Qr.	Qr.	Qr.	Qr.	Qr.	Qr.	Qr.	Qr.	Qr.
BANK CLEARINGS: Town (ex Metropolitan) Country Provincial (11 Towns)	£ Mn.	£ Mn.	£ Mn.	£ Mn.	£ Mn.	£ Mn.	£ Mn.	£ Mn.	£ Mn.	£ Mn.	£ Mn.	£ Mn.
	9782	9529	9180	9079	8745	7932	6060	6493	6970	7256	7115	7092
	742	720	730	717	677	664	694	689	665	638	676	689
	333	311	319	319	287	285	308	318	298	312	311	318
CLEARING BANKS: Deposits* Advances* NEW CAPITAL ISSUES in Gt. Britain:	1747	1775	1810	1781	1714	1711	1686	1646	1677	1801	1885	1915
	962	938	920	913	917	897	890	889	854	805	772	753
All For United Kingdom	72·4	28·0	66·3	45·4	25·5	8·2	9·6	27·0	47·8	3·3	34·9	28·9
	37·4	19·0	34·7	21·2	6·7	5·2	9·5	20·5	33·9	3·2	26·2	25·1
IMPORTS RETAINED: Food, Drink and Tobacco	108	107	123	93	94	96	113	91	85	85	98	79
Materials: Partly Manufactured Cotton Other Total Wholly Manufactured Goods Total Retained Imports	10	9	9	8	8	7	9	6	4	4	5	4
	9	5	12	7	6	4	9	8	7	5	9	8
	43	42	35	32	29	29	31	33	27	25	26	28
	62	56	57	47	43	40	49	48	38	34	40	39
	65	60	58	50	50	52	60	36	28	30	32	28
	233	225	240	192	190	191	225	177	153	151	171	147
EXPORTS, BRITISH: Materials Manufactures—Cotton Other Total British Exports	16	15	15	12	12	11	12	11	11	10	12	11
	22	19	16	15	13	14	14	17	17	15	15	16
	88	86	80	63	58	57	56	54	56	49	54	53
	141	136	129	103	96	93	97	92	95	84	94	90
EXCESS OF IMPORTS: Goods and Bullion	94	87	106	82	114	65	115	81	79	74	73	70
TONNAGE OF SHIPS (with cargoes): Entered from abroad Cleared for abroad	1659 1656	0000 Ton 1756 1738	s 1565 1581	1329 1358	0000 1528 1477	Tons 1667 1541	1505 1458	1369 1329	0000 1424 1336	Tons 1507 1408	1374 1303	1320 1291
PRODUCTION: Coal (13 weeks) Pig-iron (3 months) Steel ,, ,, Shipbuilding (commenced)	5911 180 199 230	0000 Tor 5634 133 165 000 Tors 161	6164 115 128	5948 101 139 33	5479 99 126	Tons 5111 84 119 119 39	5801 91 134 105	5750 99 137 26	5304 94 131	Tons 4666 81 123 Tons 10	5544 83 134	5755 89 150 77
INDEX OF PRODUCTION: Bulletin % of 1924 Board of Trade ,,	100·9 103·1	90·7 99·5	92·7 99·0	85·1 94·6	80·6 92·1	81·1 89·3	90·5 97·3	91·3 95·0	83·2 94·3	77·8 87·3	87·2 94·5	88:2

^{*} Mean weekly averages.

[†] Including sovereigns at their face value.

INDEX NUMBERS.	Date in		1930			193	51			193	2		1933
Percentage of 1924 level.	Quarter	2nd Qr.	3rd Qr.	4th Qr.	lst Qr.	2nd Qr.	3rd Qr.	4th Qr.	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	lst Qr.
PRICES OF COMMODITIES— General—Board of Trade Statist	Last month Last day	72·6 69	69·5 65	65·5 62·5	63·7 61·5	62·1 59·5	59·7 58	63·7 61·5	63·0 60·5	58·9 55·5	61·4 58	60·8 56	58·7 55·5
Materials—Board of Trade Statist	Last month Last day	70·4 66·5	67·0 62·5	63·3 59	62·1 58·5	59·1 56	57·0 55	61·5 58·5	59·7 57	55·0 52·5	59·7 56·5	58·7 55	57·4 54
Food-Board of Trade Statist	Last month Last day	76·6 72·5	74·4 70	69·8 67·5	66-8 66	68 ·1 65	64·9 63	67·8 65·5	69·5 65·5	66·8 59·5	64·6 59·5	64·8 56·5	61·4 57·5
Retail—Food Cost of Living	Last day	88·5	84 89	81 87·5	76 84	76 84	75 83	77 84	74 82·5	73·5 81·5	73·5 81·5	72 81	67·5 78·5
Wage Rates	Fortnight after end	984	984	984	97	97	96 <u>1</u>	96 <u>4</u>	95≩	95≩	95	94≩	94‡
PRICES OF SECURITIES— Industrials Fixed interest	,, ,, ,, ,,	112 99·7	103 101·3	96 103·5	94 100·2	86 101·5	87 92 ·6	82 93·4	83 104	83 122	90 127	95 122	93 125
SHORT MONEY	,, ,,	69	65	68	75	62	168	169	79	35	34	35	32

to the banking collapse. The continued absence of any clear indication that the lowest level has been reached has naturally a depressing influence on enterprise.

Retail prices have fallen in their usual relationship to wholesale, and their present low level is of considerable assistance in mitigating the hardships of unemployment.

TRADE.—Exports, especially of manufactured goods, fell off in January and February, but recovered in March. Adjusted for seasonal movements, the total values of exports of British Produce have been:

VALUE OF EXPORTS. £Mn.

	1931	1932	1933
1st quarter	 102	91	89
2nd ,,	 99	98	- 10 To
3rd ,,	 94	84	
4th ,,	 94	91	_

Thus the improvement over the third quarter of 1932 is maintained; but the signs of further progress are to be found in the month of March alone.

Imports of manufactured goods were reduced in the first quarter of this year.

Imports of food were down considerably in value, but in the previous quarter there was an unusual excess.

VALUE IMPORT				1077
Quarters	1931 4th	1932 1st	1932 4th	1933 1st
Grain and flour	16.9	14.1	15.0	13.2
Meat, animals and feeding				
stuffs	30.8	25.2	24.7	22.2
Other food and drink	67:1	54.7	56.8	43.4

That there has been a shrinkage of the quantity under the first two headings is clear from the following:—

IMPORTS.

WHEAT	Mn.	cwts.	MEAT .	Mn. cwts.
July 1st-March 31st,	1930-1	85	1st Or. 1931	8.1
	1931-2	97	1932	8.2
	1932-3	82	,, 1933	7.7

It is difficult to locate the change among other foods, but the fall of prices is certainly not sufficient to account for it.

VALUE IMPORTS OF MATERIALS. £Mn. Seasonal movement eliminated.

	1931 1932	1933
1st Quarter	43 45	39
2nd	48 44	
3rd	43 39	
4th	40 37	

The Imports of materials have increased somewhat since last summer, and the *quantity* is probably as great in the past quarter as two years ago, but is less than in the first quarter of last year.

'As regards textile materials we have:—

QUANTITIES IMPORTED (Mn. lbs.)

1930-1 1931-2 1932-3

Oct. 1st to March 31st.

Cotton 7300 7800 7000

Wool 4300 4800 5400

A complete statement of the volume of imports and exports cannot be made till next month.

The usual table showing the geographical distribution of the principal exported manufactures in the first quarter of 1932 and 1933 will be found on p. 9. The following will be noted:—Large increases in the value of goods to the Argentine in many groups; decreases in textile machinery and textiles to China; a 30% increase in cotton piece goods to India, but a reduction of nearly 50% to the Netherlands and Dutch East Indies; a reduction of 30% in woollen goods to Germany; reductions to the Irish Free State.

The output of coal last quarter equalled that of a year before. That of steel showed a substantial increase over the nine preceding quarters, but pig-iron improved only slightly.

AVAILABLE FOR HOME CONSUMPTION.

	. 000	J Tons.	
	1	st Qr. 1932.	1st Qr. 1933.
Iron	 	1014	890
Steel	 	1639	1591

After two years of severe depression, ship-building has re-commenced, though the figure of 77,000 tons commenced is low on all earlier records.

An increase in building, especially of dwelling houses and public buildings commenced in the last quarter of 1932,* and continued in 1933. The figures in the following Table, which excludes the County of London, are not exactly comparable within the years since the number of Local Authorities making returns varies; but this variation is not important, and does not affect comparison between the corresponding quarter of different years.

ESTIMATED COST OF BUILDING PLANS APPROVED BY LOCAL AUTHORITIES IN GREAT BRITAIN, # £MN.

	1901	1952	1900
1st Quarter	16.1	14.0	19.0
2nd	16.7	17.9	
3rd	16.3	14.2	,
4th	13.0	19.0	

† About 140 auth rities, administering areas containing a population of 17 Mn. persons.

The general index-number of production shows some increase.

The Board of Trade Journal (April 6th, 1933, p. 518) gives important figures of general indices of industrial production in the principal countries, of which the following is an extract.

INDUSTRIAL PRODUCTION.,

Average 1921-		00 - 5	
	1930	1931	1.932
United Kingdom	96	87	86
United States	86	72	57
Germany	91 -	74	61
France	112	¬ 99	77
Belgium	91	80	66
Poland	, 85	72	56
Japan	104	99	106

Thus the United Kingdom is seen to have

^{*} See Bulletin, Dec. 1932, p. 381.

suffered from the depression much less than the they are not strictly comparable. More detail is United States and than other European countries, so far as these figures are reliable; but coal, iron and steel are treated separately.

NET IMPORTS OF RAW MATERIALS (EXCLUDING RUBBER) AND CERTAIN PARTLY TABLE A. MANUFACTURED GOODS. DECLARED VALUES. £ Mn.

	1924. Quarterly Average.	ر 2	1980. uarters.			19 Quar	81. ters. 8	4	1	19: Quar 2		4	1933 Qr.
Pig iron, etc Copper, tin, lead, zinc Yarns Leather	1.8 5.4 1.8 2.9	1·2 4·6 1·5 2·9	3 1·2 3·9 1·3 2·8	1:3 3:4 1:6 3:1	1·0 3·1 1·3 2·3	·9 3·4 1·2 2·5	-9 2·6 1·1 2·4	1.4 2.8 1.6 3.5	.8 2.7 .5 2.4	.5 1.9 .2 1.4	2·3 ·2 1·2	2:8 :2 1:4	·4 2·0 ·1 1·4
Minerals (non-metals) Iron Ore Other Metals Wood Oil Seeds, &c Hides Paper Materials Silk Other Textiles (except	1·3 2·1 3·7 12·6 12·1 2·0 2·9	1.4 1.6 3.6 9.0 9.2 .8 3.2	1.2 1.0 2.5 15.4 7.3 1.9 3.0	1·0 ·9 2·3 11·0 6·8 ·9 3·0 ·4	1·0 ·7 1·8 4·2 6·6 ·9 2·3 ·4	.9 .7 2.0 5.4 6.9 .0 2.0	.9 .5 1.5 11.2 5.3 1.2 2.6	.9 .5 1.7 8.0 5.3 1.2 3.0	1.0 .6 1.7 3.9 6.7 2.4 2.8	·7 ·5 1·7 6·1 5·4 ·8 2·0 ·4	·8 ·4 1·1 8·7 4·8 1·3 2·2 ·4	·8 ·5 1·5 6·7 5·2 ·8 2·8 ·4	77 66 1:1 3:2 5:8 1:8 2:1
Other Textiles (except Cotton and Wool) Cotton Wool	3·4 27·5 10·9	2·3 8·7 7·3	1·1 4·6 4·0	1:4 12:0 4:6	1:8 7:3 8:8	1.6 5.5 8.0	·9 3·8 2·1	2:4 9:5 4:9	2·9 8·4 8·4	1·3 6·5 6·9	·8 5·3 2·0	1.6 9.3 3.2	2·1 7·7 7·9
Total, both groups and miscellaneous	92.8	59-6	54.3	5 0 ·0	45.5	42.9	39-5	49.1	47:8	36 ⁻ 6	33.7	39.8	38:7
Total. excl. cotton and wool	54.4	43.6	45:7	39-4	29.4	29.4	33-6	34.7	31.0	23.2	26.4	27:3	23.1

TABLE B. EXPORTED MANUFACTURES-DECLARED VALUES. & Mn.

	1924 Qrly.	(1930 Duarters.			193 Quar	31 ters.			193 Quart			1933 Or.
	Av.	2	Quarters. 3	4	1	2ັ	3	4	1	2 ີ	3	4	Qr. 1
Co ke	1.6	·6	-9	1.0	•8	•5	-7	-9	•7	•5	•7	-8	•7
Earthenware	3.2	3.1	3.0	2.6	2.0	2.2	2.1	2.1	1.8	2.0	1.8	1.8	1.6
Iron & Steel	18.5	13.3	11.9	10.8	8.0	7.8	6.9	7.7	7.1	7·1	6.2	7.3	6.8
Other Metals	3.9	3.0	2.6	2.7	2.0	1.6	1.7	1.6	1.5	1.7	1.5	2.1	1.8
Cutlery	2.2	1.9	1.8	1.7	1.3	1.3	1.3	1.4	1.3	1.5	1.3	1.5	ī-5
Electrical Goods	2.7	2.9	3.1	2.7	2.3	1.9	1.6	1.6	1.4	1.4	ī·3	1.7	î·ĕ
Machinery	11.5	12.0	11.0	11.0	8.8	8.5	7:3	8.5	7.9	8.2	6.6	6.9	6.4
Wood	-5	.5	•6	•5	•4	•4	•3	~ 4	.3	•3	·ž	•3	· · ·
Cotton	49.8	21.6	19.5	16.2	15.2	13.4	14.1	13.9	16.7	16 ⁻ 6	15.1	14.5	16.3
Wool	17.0	7.2	9.7	7.8	7.4	5.0	6.8	5.9	6.6	5.3	6.2	5.9	
Silk	1 .5	•4	•4	•3	•3	•3	-3	$\tilde{\cdot}_2$.2	.3	.2	.2	6.5 3.6 2.1
Other Textiles	6.9	4.9	4.6	4.1	3.5	3.1	3·1	3.2	3.3	3.4	3.0	3.4	3.0
Apparel	7.5	4.3	5.3	4.4	3.8	3.0	3.8	3.4	3.2	3.0	2.9	2.8	ο.
Chemicals	6.4	5.6	5.1	5.0	4.3	4.6	3.9	4.2	4.3	4.8	4.0	4.3	Ã.
Oils	2.2	1.9	1.8	1.6	1.4	1.3	1.ž	1.3	1.2	1.2	1.3	1.4	i
Leather	1.8	1.5	1.2	1.1	•8	-8	-8∙	- · 9	7.7	7	-6	-	1
Paper	2.3	2.1	2.1	1.9	1.6	1.5	1.6	1.7	1.6	1.7	1.5	1.7	٦.
Vehicles*	6.7	15.2	11.6	12.9	8.3	9.0	7.0	4.0	4.4	7.0	3.9	5.4	6.6
Rubber†	1.2	7.7		ੌ∙6	•5	·6	• 5	•5	5	•5	•5	•5	1: 6:
Total, including Miscel-	100								100 min				
laneous	154.7	110.3	104.8	96.3	78.4	72.0	70.7	69.5	70.2	72.8	63.9	68.8	69

[➤] Including rubber tyres after 1924.

[†] Excluding rubber tyres after 1924.

Value of chief articles exported in the 1st Qrs. of 1932 and 1933 to the principal countries concerned.

				principal countries co	nceri	ned.			
		1932	t Qr. 1933		1st 1932	Qr. 1933			Qr. 1933
		£	000		£0	000		£	000
	POTTERY, ETC	73	67	RAIL LOCOMOTIVES (Steam and other)			COTTON PIECE GOODScontinued		
	Brazil	16	35	Argentine		102	India & Cevlon	1883	2411
-	Argentine British S. Africa	36 44	36 34	Dest of S. America		1	Iraq British Malaya	252 264	85 156
	British India	35	25	British India	 32	2 19	Australia	865	981
	Australia New Zealand	36 24	48	Other Countries	87	79	New Zealand Canada	240 218	203 210
	Canada	129	111		119	203	Other Countries	1175	1246
-	Other Countries	228	204	MACHINERY (Electrical).				11130	
100000	To S. Ireland	621 60	579 46	Europe	374	227	To S. Ireland	202	197
	10 S. Freiand			S Africa	61 69	30 144	WOOL TOPS & WORSTED		
-	PIG IRON.			British India	184	134	YARN. Sweden	156	154
	Belgium	19	10	Other Countries	47 193	26 121	Germany	513 19	355 14
	France	21 12	12		928	682	Japan Canada	295	213
-	Italy	20	1 37	M A CHIENTEDAY (I)	928		Other Countries	813	920
200000000000000000000000000000000000000	Other Countries	119		MACHINERY (Prime Movers, not electrical).			To S. Ireland†	1796	1656
-		191	73	Russia France	67	12	10 S. Ireland	55	74
- Company				Spain	30 12	30 16	WOOL & WORSTED TISSUES	259	181
CHECKSON	PLATES & SHEETS (not coated).			Rest of Europe	75 37	70 33	Germany Netherlands	181	132
-	Japan	84 66	64 125	British S. Africa	72	31	Belgium	179 130	147 167
- SAME	Argentine British India	49	61	British India and Ceylon British Malaya	128 7	95 7	France Italy	105	133
	Australia & New Zealand Other Countries	33	54 270	Australia Other Countries	33	28	Other European Countries China	670 249	468 198
- 100	Other Countries				184	189	China Japan U.S.A	140	105 192
1000000		481	574		645	511	Chile and Peru	28	7
100	CLATIVANIETTE CITATION			TEXTILE MACHINERY. Russia	61	11	Brazil. Uruguay, Argentine British S. Africa	287 150	446 248
Section 2	GALVANISED SHEETS. Dutch E. Indies	45	18	Germany	49	59	Australia	21 109	45 121
Challenge	Argentine, Uruguay British W. Africa	9 53	5 63	Netherlands	56 47	52 40	New Zealand Canada	392	286
SCHOOL	British S. Africa British India	53	83	Rest of Europe	314	281	Other Countries	600	746
The second	British India Australia	216 37	238	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	104 114	63 44		3644	3622
900000	New Zealand	36 444	39 301	Japan U.S.A S. America	37 67	47 88	To S. Ireland	169	106
	Other Countries			British India	465	462	LINEN PIECE GOODS. U.S.A	419	410
	To S. Ireland	893 26	753 7	Australia Other Countries	19 98	34 104	U.S.A	34	29 69
TEMPOR				나를 내용하는 내가 나면요.	1431	1285	Australia and New Zealand	96	71
Name of the least	SHEETS (Tinned, etc.) Norway	21	11	생생님이 많은 보면 보다 이 생겨가 없다.			Canada Other Countries	45 243	59 255
1	Norway	56 31	68 24	COTTON YARN. Norway, Sweden, Denmark	193	168	Other Countries		
	Netherlands	122	103 16	Norway, Sweden, Denmark Germany and Poland	884 212	694 149	APPAREL.	870	893
and the same	France Spain	13 58	26	Belgium	74	111	British S. Africa	305 4	324 12
	Italy	23 94	9 61	France Switzerland	45 96	32 78	New Zealand Canada	134	105
	China (with Hong Kong)	204	118	Bulgaria	51	25	Canada Other Countries	31 402	24 487
DECEMBER 1	Japan Brazil	250 88	218 137	Roumania U.S.A	197 54	258 42		876	952
-	Argentine	108	135 33	Brazil	37 60	101 89	To S. Ireland	301	132
CONTRACTOR	British Malava	58 131	62	British India	297 500	193 44	BOOTS AND SHOES.		
and the	Australia Canada	186 62	305 163	China and Hong Kong Australia	96	129	British S. Africa	45 48	39 51
	Other Countries	595	495	Australia Canada Other Countries	58 374	78 396	New Zealand Other Countries	227	186
		2100	1984	Other Countries				320	276
	COPPER MANUFACTURES				3228	2587	To S. Ireland	315	146
ı	Egypt	3 68	12 75	COTTON PIECE GOODS. Norway, Sweden, Denmark	579	548	LEATHER.		
	Australia	7	18	Germany	183	170 149	LEATHER. Germany France U.S.A	37 42	45 41
	New Zealand Other Countries	11 107	8 101	Switzerland	259 174	225	U.S.A Other Countries	102 291	118 326
		196	214	Turkey Rest of Europe Dutch E. Indies	88 614	161 538	Other Countries		
1		190		Dutch E. Indies	293	124 692	To S. Ireland	472 73	530 76
I	TIN (Blocks, etc.) Sweden	28	25	China (with Hong Kong)	1554 128	153			
I	Germany	5 40	7 58	U.S.A	77 23	48 51	PAPER. Foreign Countries	124	
ı	U.S.A	7 1	82	Ancontina Truonav	512	752	British India Australia and New Zealand	23 341	
	Canada Other Countries	203	7 23 8	Colombia Egypt British S., W. & E. Africa	152 290	330 372	Other British Possessions	132	120
ı	· · · · · · · · · · · · · · · · · · ·	284	417	British S., W. & E. Africa Fore gn W. & E. Africa	1068 239	1437 366		620	545
1		404	+11	Fore gn W. & D. Airica	""	1	<u> </u>	<u> </u>	1

†Yarn only.

IRON AND STEEL STATISTICS FOR U.K. 000 tons.

		F	IG-IRC)N.†				CRUD:	E STEE	L.		RTS OF STEEL.
		Produc- tion	+ Im- ports	– Ex- ports	=Home Cons'mp- tion	% Imports to Home Consump- tion	Pro- duction	*Im- ports	Home Con- sumption	% Imports to Home Con- sumption	Semi- Finished	Finished
1913	Qrly. aver'ge	2565	46	236	2375	1.9	1916	215	2131	10	209	751
1923 1924 1925 1926 1927 1928 1929 1930	27 27 27 27 27 27 27	1860 1840 1559 610 1826 1653 1895 1549	27 77 71 124 152 30 38 78	223 150 140 148 83 114 136 79	1664 1756 1490 653 1895 1569 1797 1548	1.6 4.4 4.8 1.9 8.0 1.8 2.1 5.0	2122 2054 1849 890 2275 2131 2415 1825	138 271 289 390 421 286 2 47 272	2263 2324 2139 1280 2695 2417 2662 2097	6·1 11·7 13·5 30·5 15·6 11·8 9·3 13·0	540 470 188 145 251 245 252 168	1153 1146 600 521 712 702 699 537
1931	1 2 3 4	1012 993 841 911	67 83 62 93	48 63 44 47	1031 1014 859 958	6·5 8·2 7·2 9·7	1389 1261 1186 1339	227 294 302 434	1616 1555 1489 1773	14.0 18.9 20.3 24.5	99 98 88 104	331 355 316 374
1932	1 2 3 4	989 944 812 828	58 42 28 30	33 43 19 32	1014 943 821 825	5·7 4·5 3·4 3·6	1373 1309 1230 1344	266 212 155 105	1639 1521 1385 1449	16·2 13·9 11·2 7·3	100 98 129 126	338 336 286 333
1933	1	890	22	22	890	2.5	1505	86	1591	5*4	100	312

[†] Inc. Ferrous Alloys.

STOCKS OF STAPLE COMMODITIES.

Table supplementary to the summary table, p. 2, Special Mem. 32.

Beg	inning of	(1) American Cotton.‡ 1,000 bales	(2) Tin.\$ 1,000 tons.	1,000 U.S.	ad.	(4) Spelter 1,000 tons.	(5) Rubb er. 1,000 tons.	(6) Sugar. 1,000 tons	(7) Tea. Mn. lbs.	(8) Coffee. Mn. bags.	(9) Wheat. Mn. bush.	(10) Petrol- eum. Mn. barrels.
1931	Jan	6,929	52.6	92.2	8.3	140	506	7,018	262	32.2	535	603
	April	7,564	60.0	116.5	13.5	140	547	8,453	242	31.1	554	591
	July	8,085	62.0	124.6	13.5	144	545	7,007	203	28.2	433	587
	Oct	9,165	61· 9	118 [.] 6	13.2	138	570	6,811	195	34.0	486	557
1932	Jan	9,518 9,817 9,930 9,896	61.7 61.4 61.0 61.5 61.7 61.9	135·2 143·1 148·1 151·0 151·2 155·2	13·1 13·3 13·8 14·7 14·1 13·9	138 137 136 138 140 140	644 651 644 646 646 644	8,577 8,247 8,641 9,091 8,738 8,387	260 248 240 213 171 182	36·9 36·9 36·7 36·9 35·8 33·0	589 621 605 584 525 481	568 568 570 570 571 571
	July	11.610	60·9 59·9 57·9 58·6 58·5 57·9	161·1 160·7 156·6 153·4 149·8 155·9	15·7 16·1 16·8 16·5 17·3 19·2	140 141 136 127 123 121	615 601 617 622 629 634	8,069 7,718 7,532 7,018 7,778 8,901	182 184 203 219 239 264	31.5 * * * * * 31.1	433 386 374 455 486 481	559 560 556 549 545 536
r 1933 -	Jan Feb March April	11,011	56·8 55·3 53·6 52·2	156·8 164·9	20·2 23·7 25·3 25·1	125 128 133 137	650 658 645†	8,731 8,554 8,780	286 295 292 276	30·6 29·3 26·5†		526 524 524

^{*} Not available.

^{*} Blooms, Billets, Sheet and Tinplate Bars.

[†] Provisional. || Of this reduction, 18,000 tons is due to revision of estimate of Malay Stocks. |
‡ Revised Series—i.e., including slight additions.

⁽¹⁾ Total supply seas ally corrected, exclusive of European and Asiatic mill stocks.

⁽²⁾ London Metal Exchange Visible Supply plus "Tin" estimate of Straits Stocks.

 ⁽⁸⁾ U.S. and Mexico refined stocks to April, 1930. U.S. only since: U.K. stocks in official warehouses.
 (4) Visible supply in U.K. and U.S.

⁽⁵⁾ An estimate of World's stocks supplied by Rubber Growers' Association.
(6) Total visible supply.
(7) Tea Brokers' Association.
(8) Visible supply in Brazil (Ports and Interior, including São Paulo Government stock), Europe and U.S.A.
(9) Stanford Wheat Studies Estimate of World's Visible Supply
(10) Stocks of Crude and Refined Oils in U.S.

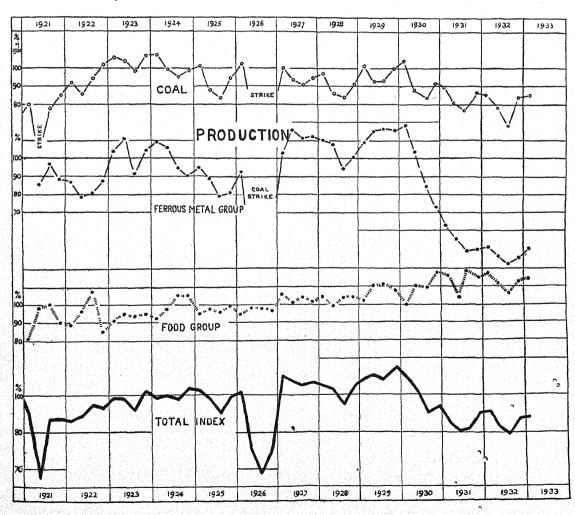
THE PHYSICAL VOLUME OF PRODUCTION.

THE Index Number of Production for the first quarter of 1933 is 88.2, which compares with 87.2, the index for the last quarter of 1932, and 91.3, that for the first quarter of 1932. The average seasonal deviations in the first and fourth quarters of a year are respectively 2.6 per cent. and 3.6 per cent. above the general level, so that the increase of 1 point from the fourth quarter of 1932 to the first quarter of 1933 may be considered to be a reflection of an increase of about 2 points in the general trend. Apparently the upward movement in the trend from the third to the fourth

quarter of 1932 has been maintained (See BULLETIN, March 23, 1933, p. 83).

Increases were recorded in Coal, Iron and Steel production and in Textiles. The Nonferrous Metal Group and the Paper Group show declines; little change is recorded in the Food Group and in the Chemical Group. In the March Bulletin, to which reference has already been made, it was suggested that a knowledge of the Index Number which has just been calculated would furnish an estimate of the Board of Trade Index Number, which is due to appear at a later date. This estimate is now given as 94.

QUARTERLY INDEX OF PRODUCTION.



QUARTERLY INDEX NUMBERS OF PRODUCTION. Average 1924 = 100.

dnoan:	Industry	Average quarterly production, 1924.	Weights	Vear. (1924	1925	9881	1927	1928	1929	1930	1931	1932	1933
)	1ts	Ors. 2 4	H6100 4	H004	чака	нам4	H004	H0W4	нака		 _
<u> </u>	Coal- mining.	, 000 tons 67,308	232	107.3 99.3 95.0 98.4	100.8 87.8 83.6 94.4	102.5 29.8 10.4 41.6	100.0 93.5 90.8 94.1	97.1 86.1 83.8 91.4	101.2 93:1 93:5 99:5	104·2 87·8 83·7 91·6	88:3 81:4 76:2 86:2	85.4 78.8 69.3 83.9	85.5
	Pig.	000 tons 1,827	12	105.0 102.8 97.1 95.3	94.4 90.6 75.9 80.5	87.8 36.7 2.4 6.8	91.8 112.3 100.3 94.8	93.3 94.0 85.4 89.1	91.6 105.3 110.5 107.5	105·1 98·4 72·7 62·9	55.4 54.4 46.0 49.9	54.2 51.7 44.5 45.3	48.7
	Steel,	000 tons 2,050	36	111.2 106.0 90.8 92.8	94.7 89.5 83.3 93.3	103°8 36°1 8°8 24°9	122:3 121:1 102:8 97:7	106·5 102·7 99·2 107·4	117.0 121.1 120.0 115.4	118.4 97.0 82.5 64.0	67.7 62.9 57.9 66.8	67.0 63.9 61.4. 67.0	75.1
11:	Ship- building ‡	000 tons 1,373	63	100.0 106.7 103.1 90.1	79:5 74:1 67:6 57:4	55.6 55.6 48.0 48.1	87:2 100:6 111:8 114:7	104.9 87.6 79.4 90.5	98.8 105.9 105.4 113.6	117.6 101.4 81.4 66.2	50.6 40.5 29.2	27-2 20-5 17-3 16-5	18.4
	Ship- Railway building Vehicles	tons 9,929	g	142·7 112·9 78·3 66·1	167°9 150°0 111°9 98°5	188'6 149'1 94'0 82'6	67.0 155.7 196.3 244.6	199·3 265·1 154·2 126·2	159°9 151°6 152°8 149°9	149.0 180.8 151.2 189.8	104.9 75.7 76.2 22.5	31.3 18.4 9.2 9.1	21.2
	Group Index.		341	109-0 108-2 94-6 90-6	95·1 89·2 79·4 81·1	92.8 49.4 25.1 32.7	103.4 116.0 111.3 112.0	110·1 107·7 94·9 100·8	109·1 114·8 116·4 115·9	118:1 104:1 85:2 72:9	63.2 55.8 49.1 50.1	50.9 46.2 44.9	50.7
	Copper.	tons 39,626	99	96·9 93·8 104·1 105·0	97.4 95.7 104.8 94.3	110°9 95°8 118°8 116°7	119·7 132·0 112·4 125·9	125·8 126·1 120·6 118·2	117.4 120.8 114.7 120.1	103°1 121°1 129°4 114°5	88.6 104.2 85.0 96.5	95·4 95·8 100·2 104·7	30.5
Ш	Lead, Tin and Zinc.	tons 87,967	69	96.4 87.3 118.5 97.7	102.3 108.9 117.0 124.9	123:8 111:1 110:4 121:5	131.6 115:8 124:4 114:2	109.9 120.0 94.3 106.5	106·1 120·3 120·4 109·7	119.7 113.7 100.4 123.9	96.0 138.1 115.7 123.6	115.6 95.2 84.5 94.4	84.6
	Group Index.		25	96.6 90.4 111.6 101.2	100.0 102.6 111.2 110.3	117.6 103.8 114.4 119.2	125.9 123.5 118.7 119.8	117·5 122·9 106·9 112·1	111.5 120.5 117.7 114.7	111.8 117.2 114.3 119.4	92.4 121.9 101.0 110.6	105·9 95·5 92·0 99·3	87.3
	Cotton.	bales 689	82	104.2 90.4 79.7 126.0	136.9 120.6 101.6 135.1	135.0 102.8 81.7 107.2	142.8 120.2 109.6 109.3	114.4 109.0 92.9 115.0	117.6 111.4 85.8 118.6	107:3 86:4 61:3 81:3	71.7 78.1 74.3 102.0	100°9 94°0 73°3 87°9	2.56
	Silk.†		100	74.6 94.3 1111.5 119.5	112.2 152.0 81.9 79.3	92·7 96·5 86·3 105·0	108·2 101·8 96·9 147·6	151·1 136·6 140·8 158·0	147.3 142.2 162.8 175.0	159.0 125.0 127.2 140.7	142.0 139.7 145.7 177.9	199·1 215·4 183·0 208·0	216.3
	Group Index.		216	101.0 90.8 83.2 125.3	134.2 124.0 99.5 129.0	130.4 102.1 82.2 107.0	139.0 118.2 108.2 113.5	118.4 112.0 98.1 119.7	120°8 114°7 94°1 124°5	112.9 90.6 68.4 87.7	79.3 84.8 82.1 110.2	111.6 107.2 85.2 100.5	108.8*
	Wheat and Flour.	000 cwts . 31,914	09	85.4 99.6 111.6 103.3	89.2 89.3 88.4 91.1	82.2 87.0 97.9 84.0	92.4 103.6 98.0 92.3	93.2 86.4 92.7 91.8	87.0 94.9 100.1 91.4	81.3 91.8 99.8 101.9	89.9 97.5 110.8 114.2	98.0 103.0 99.7 92.2	9.06
Λ	Cocoa.	cwts. 259,231	11	109·6 89·6 88·7 112·1	109·9 113·3 99·2 112·1	119:3 114:4 87:6 113:9	144·3 82·4 102·8 101·3	121.4 103:7 102:5 101:0	115·3 116·7 103·4 108·3	99.9 121.7 96.5 121.6	151.2 95.9 118.6 99.5	168.0 106.2 102.8 138.7	160.7
	Tobacco	000 lbs. 36,477	7%	95·6 99·7 101·9	96.3 105.2 110.2 108.5	102.5 112.7 104.8 112.8	107-2 110-0 118-7 121-9	116-9 124-3 127-7 133-6	123·3 139·1 141·1 142·1	138·3 136·7 138·0 145·4	142.9 122.5 132.8 128.4	121.3 133.8 125.0 134.0	125.2
	Group Index.		209	92.5 97.8 104.9	94.8 97.8 96.0	95.3 98.6 97.8 96.8	105.7 101.4 104.2 101.6	104.4 99.3 103.5	101.9 110.6 111.3 107.9	99.8 110.3 109.3 117.1	115.3 103.8 118.1 115.2	117·2 111·7 107·0 111·9	112.8
Λ	Oil Seed crush- ing.	000 tons 435·3	1	109·9 97·8 87·8 104·5	118·2 91·1 93·0 84·6	92.8 84.6 80.4 59.7	82.8 77.5 66.8 70.6	98.8 99.8 79.5 72.7	109·2 86·0 69·7 87·7	79·7 69·2 59·1 75·7	82.0 86.4 67.4 75.8	86·2 83·8 68·2 76·3	81.1
1.	Group Index (incl. heavy Chemi-		62	95.4 103.0 101.0 101.2	107·6 94·4 82·4 87·4	90.0 79.5 72.6 84.4	107.0 92.6 92.8 97.9	104·8 103·8 93·3 102·7	100·1 102·1 103·4 105·4	94.5 88.8 97.7 84.2	83.9 82.5 73.9 86.5	89.2 96.1 81.8 90.1	*0.06
V11.	Paper.	000 tons 244·3	86	53.7 104.9 127.2 114.2	77.3 99:4 108:6 111:2	91.7 114.4 114.8 103.5	109.0 112.1 126.4 124.2	82.4 118.0 99.8 122.9	111.2 136.6 139.7 147.0	116·3 127·0 125·4 122·5	101.6 94.0 121.1 142.6	143·1 101·5 136·5 155·6	126.6
	Final Index.		1183	98.8 99.9 97.9 103.8	102.6 98.2 90.1 99.1	102.2 72.0 57.3 69.7	110.8 108.1 105.9 107.4	105.7 103.7 95.4 105.2	108.3 111 0 108.9 114.8	109.6 100.9 90.7 92.7	85.1 80.6 81.1 90.5	91.3 83.2 77.8 87.2	88.6

FOREIGN EXCHANGES.

			1		ΑV	ERAGE (OF DAIL	Y RATES					
1	Paris f. to £	Milan l. to £	Berlin M. to £	Amster- dam fl. to £	Prague kr. to £	Berne	Stock- holm kr. to £	NewYork \$ to £	Buenos Aires d. to \$	Rio de Janeiro d. per mil.	Bombay d.perrup.	Hong- kong d. per \$	Kobe
arity	124.21	92.46	20.43	12·107	24.02	25-2215	18.159	4.866	47.58	27	18		24.58
1929	104-00	00.07	00-400	For 19	19 to 1928	RATES S	SEE EARL	IER BULL	ETINS.	1	1		1 2 3
AN EB	124·08 124·23	92·67 92·70	20·402 20·447	12·091 12·115	163·83 163·84	25·207 25·231	18·138 18·155	4·8503 4·8525	47·42 47·39	5.91	18.056	24.49	22.56
IAR	124.24	92.68	20.455	12.117	163.85	25.229	18.170	4.8529	47.28	5·90 5·86	18.008	24·08 24·08	22.36
PRIL	124·21 124·14	92·70 92·65	20·475 20·415	12·090 12·067	163.93	25.214	18.173	4.8534	47-28	5.87	17.965	23.92	22.08
UNE	123.99	92.67	20.335	12.074	163·85	25·190 25·198	18·154 18·113	4·8510 4·8485	47·24 47·17	5·87 5·87	17·912 17·854	23.68 23.66	22.11
ULY	123.88	92.74	20.359	12.086	163.90	25.221	18:100	4.8511	47.23	5.87	17.818	23.89	22.54
UG EPT	123·90 123·87	92·74 92·69	20·360 20·361	12·103 12·093	163·83 163·76	25.203	18.101	4.8488	47.21	5.88	17.830	23.87	23.13
CT	123.89	93.00	20.397	12.098	164.41	25·164 25·176	18-101 18-141	4·8479 4·8695	47·20 46·82	5.87 5.86	17·869 17·871	23·73 21·73	23.45
OV	123·85 123·92	93·16 93·24	20:389 20:386	12·087 12·096	164.57	25.151	18.149	4.8777	46.26	5.80	17.886	21.18	24 0
EC 1930				12.080	164.47	25.109	18-102	4.8817	45.86	5.26	17.936	20.25	24.1
AN EB	123·91 124·16	93·05 92·87	20·387 20·366	12·102 12·123	164·58 164·26	25·163 25·198	18·136 18·124	4·8695 4·8621	45·12 42·70	5·52 5·55	17·931 17·907	19·47 18·66	24.2
AR	124.26	92.84	20.382	12.125	164.11	25.136	18.106	4.8632	42.10	5.72	17.862	18.56	24.3
PRIL	124·10 123·90	92·78 92·71	20·375 20·365	12.097 12.081	164·16 163·97	25·094 25·108	18:092	4.8634	43.61	5.81	17.860	18:40	24.3
UNE	123.81	92.76	20.372	12.086	163.85	25.084	18·111 18·095	4·8599 4·8588	43·02 41·67	5·86 5·63	17·835 17·816	17·67 15·45	24.4
ULY	123.66	92.88	20.383	12.092	164.05	25.044	18.097	4.8652	40.84	5.34	17.821	15.41	24'3
UG EPT	123·82 123·77	92·98 92·83	20·387 20·404	12:089 12:067	164·17 163·82	25·047 25·049	18·112 18·093		40.67 40.37	4·87 4·98	17·790 17·788	15.88 15.90	24.3
CT	123.85	92.80	20.412	12.058	163.79	25.020	18.096		38.50	9	17.818	15.81	24.5
OV EC	123.65 123.60	92·78 92·72	20·379 20·369	12.068 12.061	163·79 163·70	25·049 25·040	18·101		38·65 37·42	4·85 4·73	17:789	15·55 13·91	24·5
1931	220 00			12.002	100 10	20010	10.101	7 0001	01 12	1 10	11110	10 01	
AN	123.81	92.74	20.418	12.066	163-90	25.075	18:136		34.48	4.45	17.782	12.06	24.4
'EB IAR	123·94 123·13	92·81 92·74	20·438 20·406	12·103 12·119	164·08 163·95	25·181 25·246	18·147 18·142		35·63 38·60	4·24 3·87	17:781	11·26 12·08	24·4 24·4
PRIL	124.28	92.82	20.408	12.106	164.06	25-235	18.148	4.8600	37.77	3.62	17.845	11.99	24.4
(AY UNE	124·34 124·24	92·91 92·94	20·434 20·496	12·103 12·088	164.11	25.219 25.081	18.143 18·148		34·87 34·70	3.33 3.71	17·856	11.82	24.4
ULY	123.82	92.86	20:969††	12.057	163-97	24.995	18.146	4.8566	34.61	3.58	17:811	12:34	24.4
UG EPT	123·90 115·64	92·87 88·02	20·573 19·361	12.046 11.34	163·96 132·72	24.922	18·158 17·51	4·8573 4·542	31·96 32·08	3·16	17·769 17·765*	11.81	24·4 26·1
CT	98.68	75.37	16.702	9.62	130.7	19.83	16.81	3.886	32.03	3.49	18.880	15.06	30.0
OV EC	94·83 85·94	72·14 65·96	15·717 14·261	9·26 8·35	125·2 113·4	19.09	17.98	3·719 3·372	37·70 40·89	3·96 4·29	18·136 18·129	16·74 17·59	31.8
1932	00 04	00 00	17 201	0.55	1.0	1, 30	1001	"					
AN	87·32 87·80	67·89 66·80	14·489 14·548	8·54 8·56	115·8 116·6	17·58 17·73	17·87 17·93	3·430 3·459	40·59 39·72	4·29 4·19	18·125 18·144	17·30 17·67	25.3
'EB IAR	92.22	69.97	15.25	8.99	122.43	18.75	18.29	3.634	38.78	4.02	18.157	16.43	21.4
PRIL	95·16 93·15	72·84 71·35	15·79 15·44	9·26 9·07	126·40 123·76	18·28 18·79	19.65 19.58	3·752 3·676	36·52 35·84	4·18 4·72	18·031 17·929	15·12 15·10	21.1
IAY UNE	92.65	71.29	15.38	9.02	122.00	18.69	19.51	3.649) ***	4.93*		15.35	20.0
ULY	90.64	69.68	14.97	8.82	120.02	18.26	19.48	3.552	1	5.04*		15.48	18.6
UG EPT	88·71 88·61	67·91 67·66	14.60 14.59	8.63 8.64	117·40 117·26	17·87 17·97	19·47 19·49	3·476 3·471	40.41	5·15* 5·20*	18.170	16·10 16·25	17
OT	86-60	66.29	14.30	8.45	115.44	17.61	19.42	3.399	41.21	5.33*	18.168	16.24	16
iov DEC	83·62 83·93	64·08 64·07	13·79 13·76	8·12 7·83	110.48	17.02	18.68	3·277 3·276	42.91	5·50* 5·43*		16·46 15·66	15
1933							18.37	3.372	42.21	5:38*	7.74	15.56	14.
AN EB	87.22	65·64 66·91	14·13 14·36	8·37 8·53	113·31 115·21	17·15 17·65	18.75	3.422	41.6‡	5.38*			14.
eek ending Iar. 4		66-98	14:38	8.47	115.04	17.54	18.86	3.431	41.3‡	5.38*	18.12	15.64	14.
,, 11	88.10	68.18	14.65	8.63	117.00	17.93	18.91	**	40.71	* 5·38*	18.00	16.18	15 ⁻
,, 18	87:52	67:14 66:66	14·46 14·39	8·50 8·51	115·98 115·38	17·79 17·76	18.94 18.91	3·455 3·430	40·7‡ 41·0‡	5.38*	18.07	15.88	15
pril 1	87:06	66.67	14:35	8.48	115.04	17.73	18.90	3.421	41.0	5.38	18.06	15.89	15
,, 8	87:00	66.81	14·49 14·40	8·47 8·45	114·92 114·65	17·72 17·65	18·94 18·94	3.421	41·01 41·11	5·38*	18·07	15.66 15.81	14
,, 15 ,, 22	86·63 87·88	66.66 67.30	14.90	8.60	116.03	17.92	18.95	3.707	40.9	5.30	18·07 18·06	16.04	

[|] Sellers.

^{||} Zurich from November 12th, 1929.

[†] Official Rate-

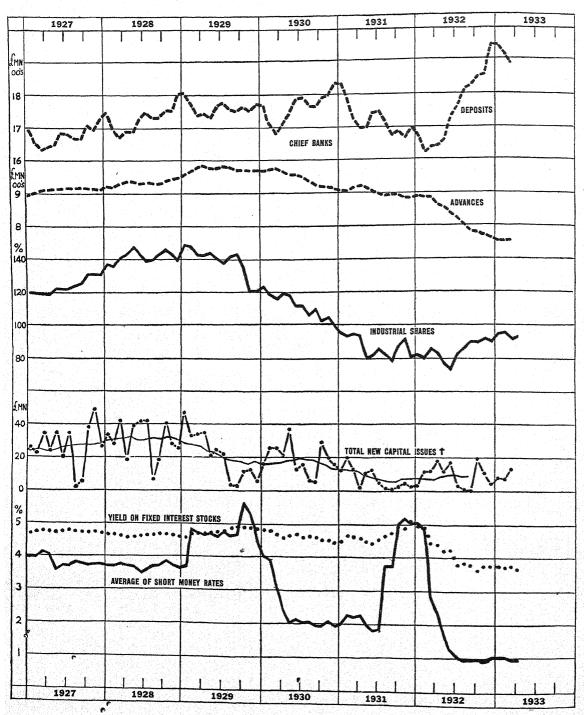
[°] Moratorium.

th Excluding week ending July 18th, 20.518.

^{**} No Quotation : 1 Offici

^{*} Nominal.

FINANCE.



^{† 12-}months moving average superimposed.

	ST	ocks &	SHARI	es	NE'	₩ .	BANK	CLEA	ABING				OTT	IER B	ANKIN	G.	Chiange and	1	× 1	N	IONEY	
		strials ¤⊈	Fixe		CAPI'	es Es	Londo Clear	n Bank ing Ho	ters'	Pro- vincial	Banl Engl				9 Clea Banl	ring*			BILLS	lex.	rate.	ė
	New Index of Price	Scusitive Index Month-to-Month Variations	Index of Price	Index of Yield	for U.K.	for Abroad.	Tow	/n.	Country.	11 Towns.	Private Deposits.	Bank and Currency Notes, ‡	Deposits.	Discounts.	Advances.		Katio or Cash to Deposits.	Ratio of dvances to Deposits.	TREASURY I	t Money Index.	Day to day га	months' rate.
	%	χ. X.	, 5 c/	%	£Mn	£Mn.	£M	n	£Mn.		£Mn.			£Mn.		£Mn.	%	% AC	₽ £Mn.	Short	а %	e %
1924 Average	100		100	100	7.4	11.2	2070	*	226	147	109	390	1632	242	791	324	11.7	48.5	601	100	2.43	3.45
1926 1st Qr. Av 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	111 113 114 116		96·8 97·0 96·2 95·5	103·3 103·1 103·9 104·7	14·7 8·1 8·5 15·7	11·3 9 8 6·2 10·2	2070 2100 1990 2150	1980 2050 2125 2170	231 219 205 226	141 123 117 128	107 103 108 104	371 381 374 371	1610 1600 1634 1662	209 195 226 225	866 875 874 887	255 244 247 251	11.7 11.9 11.8 11.8	53·8 54·6 53·5 53·4	611 578 624 667	140 137 137 140	4·15 3·92 3·95 4·02	4·54 4·37 4·40 4·63
1927 1st Qr. Av 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	. 119 121 124 131	•••	97·0 96·6 96·6 97·3	102·9 103·5 103·5 102·8	17 8 16·5 7·2 17·2	9·8 5·8 6·8 20·4	2228 2253 2040 2240	2125 22 00 21 80 2 260	251 238 224 238	135 131 129 140	105 98 100 101	364 377 376 376	1660 1659 1672 1711	220 200 211 233	803 913 919 916	245 237 236 236	11.6 11.7 11.5 11.5	54·5 55·1 54·9 53·5	642 576 609 651	135 127 126 125	3·91 3·68 3·66 3·59	4·23 4·07 4·33 4·32
1928 1st Qr. Av 2nd ,, ,, 3rd ,, ,, 4th ,,	138 145 141 143	,	98.6 100.4 98.9 99.0	101·4 99·6 101·2 101·0	18·5 20·6 12·4 21·6	16.0 12.5 9.8 8.9	2320 2430 2240 2330	2220 2370 2390 2350	237 242 227 242	138 133 122 132	105 100 102 101	369 374 375 370	1706 1703 1738 1770	226 210 251 252	923 934 932 942	241 232 239 243	11·1 11·1 11·1	54·2 54·8 53·3 53·3	594 541 605 712	125 121 123 126	3·58 3·52 3·52 3·61	4·22 3·91 4·16 4·36
1929 1st Qr. Av 2nd ., ., 3rd .,	147 143 141 135	_ _ _ _ 5·2	98·8 97·5 94·6 93·9	101·2 103·9 105·7	5.9	15·1 8·7 3·6 4·0	2410 2340 2340 2440	23 00 22 90 2 500 243 0	241 243 233 248	135 122 118 123	63 ^{**} 37 61+36 64+36 70+3	361 367	1775 1748 1764 1765	249 201 227 227	968 981 979 971	247 244 242 241	10·7 10·9 10·8 10·7	54·6 56·1 55·5 55·0	755 722 768 787	149 158 158	4·39 4·45 4·36 5·27	4 97 5·26 5·43
NOV DEC 1980	. 121	-11.3 + 0.5 + 0.3	94·1 94·5 95·5	106·3 105·8	6.3	6.6	2450 2170 2340	2410 2265 2210	242 248 250	123 127 119	55+4 58+3 64+3	2 358 6 365	1751 1773 1767	231 227 243	970 971 970	235 236 233	10·6 11·3	55·4 54·8 54·9	792 805 758	189 177 151 136	5·38 4·64 4·04	6·22 5·66 4·80 4·11
FEB MAR APR MAY JUNE	119 116 120	-4.6 -2.6 $+6.5$ -3.4	98·1 100·3 98·4	104·2 102·0 99·7	8·0 16·9 11·9 17·8	18·2 9·4 9·4 20·1 5·5	2400 2770 2340 2360 2430	2310 2670 2230 2410 2340	236 234 249 235 228	121 120 114 104 102	59+3 59+3 66+3 58+3 59+3	5 348 6 350 6 361 6 356	1714 1682 1712 1742 1788	218 181 207 246 273	973 976 970 957 958	229 225 225 231 233	10 6 10 8 10 9 10 7 10 6	56·8 58·0 56·7 54·9	678 615 571 585	125 104 82 68 71	3·85 3·35 2·23 1·94 2·13	3·96 3·03 2·49 2·14 2·33
JULY AUG SEPT OCT NOV DEC	112 106 . 110 . 103 105	+ 0.6 - 7.2 + 6.0 - 9.9 + 2.8	99·7 99·2 99·7 101·3	100.4 100.4 100.4 98.7 96.3	13·1 3·5 2·4 12·8 11·5	3·3 3·1 2·6 17·7 8·4 5·4	2150 2100 2340 2220	2290 2310 2440 2210 2040 2240	253 224 207 250 226	103 95 89 95 100	70+3 66+3 65+3 66+3 60+3	6 364 4 367 4 358 6 357 3 355	1794 1767 1764 1791 1801 1839	284 279 284 296 310	952 936 927 924 920 915	241 250 255 257 265 269	10·7 10·6 10·5 10·5 11·1	53·1 53·0 52·6 51·1	633 648 649 656 672	69 69 65 65 70	1.88 1.96 1.69 1.65 2.04 1.52	2·37 2·29 2·09 2·11 2·23 2·30
JAN FEB MAR APR MAY JUNE	94 . 95 . 94 80	$ \begin{array}{r} $	98·5 99·6 100·2 103·0	101.8 100.6 99.9 97.6	6 6 0 7 4 9 1 4 6 9	13.6 6.0 .3	2060 1960 2270 1980	1980 1880 2 170 2 020	218 213 228 218	99 98 94 93	58+3 59+3 61+3 62+3	3 350 35 354	1836 1782 1726 1698 1700 1744	299 238 209 222		281 293 295 292 274 272	10·5 10·5 10·4	51.0 53.3 54.5 54.5	5 559 5 571 5 571	75 75 68	1.87 2.50 2.23 2.31 1.98 1.56	2·17 2·52 2·62 2·61 2·26 2·12
JULY AUG SEPT OCT NOV DEC	82 78 87	$\begin{vmatrix} -6.8 \\ -3.3 \\ +15.8 \\ +8.8 \end{vmatrix}$	99·2 97·9 92·6 94·0	101·102·108·106·1	3 1.6 9 1.3 1 2.5 5 4.3	0.1	1690 1680 1430 1380	1860 1750 1420 1360	202 0 192 0 217 0 212	87 79 98 93	58+3 58+3 70+3 60+3	34 359 35 360 50 352 51 357 38 355 38 364	1750 1708 1675 1688 1670 1700	261 234 3 235 238	895 897 896 887	283 286 288 288 284 281	10:4 10:2 10:2	52 53 53 53 53 53 53 53 53 53 53 53 53 53	4 658 6 656 1 600 1 626	125 126 168 175	4.31	2·14 4·31 4·28 5·71 5·76 5·84
JAN FEB WAR APR MAY JUNE	80 86 83	$\begin{array}{c c} c c & -2.2 \\ c c & +7.2 \\ c c & -6.0 \\ c c & -11.1 \end{array}$	2 93·7 2 103·4 0 104·5 1 109·4	97 96 91 91 91 91 91 91 91 91 91 91 91 91 91	2 9·1 0 11·1 0 9·6 7 8·9	2·9 1·0 3 8·2	1750 1700 1640 1640	1680 1638 1560 1680	208 5 214 7 216 7 215	98 102 95 95	73+ 73+ 78+	38 355 32 345 32 354 35 358 33 358 34 357	1677 1621 1639 1643 1661 1727	L 205 9 215 3 238 L 2 45	888 888 866 866 858	264 266 272 284	10.5 10.4 10.4 10.6	5 54° 4 54° 4 52° 6 51°	8 574 2 576 7 611 7 611	163 97 2 79 7 54	4·27 2·48 1·98 1·38	2·36 1·57
JULY AUG SEPT. OCT NOV DEC	96 96 92	$\begin{vmatrix} +7.9 \\ +8.9 \\ -1.0 \\ +2.0 \end{vmatrix}$	9 120-2 9 121-5 0 126-8 0 122-9	83·1 82·1 81·1	9 — 7 — 0 11:8 8 10:3	7:5	1480 1470 1590 1890	1628 1530 1580 18 3 0	5 194 0 185 0 210 0 206	92 5 88 95 6 99	90+3 83+3 8 2 +3	34 366 34 366 33 362 35 361 33 359 34 372	1768 1813 1826 1853 1854	3 373 3 399 3 389 9 389	3 803 0 789 9 782 9 772	348 367 396 409	3 10°4 3 10°4 3 10°5 10°5	4 44° 4 43° 2 42° 2 41°	2 79 2 85 2 87 5 86	1 33 4 32 2 34 0 33	·65 ·71 ·69	·69 ·84 ·77
JAN FEB. MAR. APR.	96	3 - 0	l 123·6 3 122·4	81	3 4·9 1 12·3	2.3	1590) 213	101	106+ 106+	-32 35 - 33 35 - 3 4 36 - 3 5 37	5 191' 4 188 6	7 38 6 34	4 753 6 754	480) 10.	7 39 ⁻	3 85 0 79 76	5 3 0 3 8 3	5 78	88.

STOCKS & SHARES— NEW CAPITAL ISSUES— BANK CLEARINGS—

† Exclusive of Investments in Affiliated Banks.

* NORMAL SEASONAL CHANGE REMOVED.

BANK OF ENGLAND--PRINCIPAL BANKS-TREASURY BILLS-SHORT MONEY INDEX---

Index Nos. of Prices and Yield as percentage of 1924 level; on 15th of month.

Sensitive Index.—Geometric Mean of monthly percentage changes.
Issues during month in Gt. Britain (a), for U. K. (b), for Abroad, excluding Government loans, etc.—See MONTHILY REVIEW OF THE MIDLAND BANK, LTD.
Total of Town Clearings (i.e., excluding Metropolitan) of London Bankers' Clearing House for 3 weeks covering 2 Stock Exchange settlement days, Consols settlement day, and 4th of following month, Country Clearings of London Bankers' Clearing House and Provincial Clearings for 11 towns—proportionate totals for 24 working days.
Deposits, other than public, 11th-17th of month.
Bank Notes and Currency Notes in circulation 11th-17th of month. Issues amalgamated. November 22nd, 1928, "Current, Deposit and other accounts," etc. Averages for the month of 2 clearing banks (i.e.—excluding the National Bank, Ltd.).—MONTHLY REVIEW OF THE MIDLAND BANK, LTD.

Total outstanding in middle of month (11th-17th).
Average of Bank Rate, Bankers' Deposit Rate, 3 Months' Bill Rate and day-to-day rate for week ending 15th of month, expressed as percentage of 1924 average.

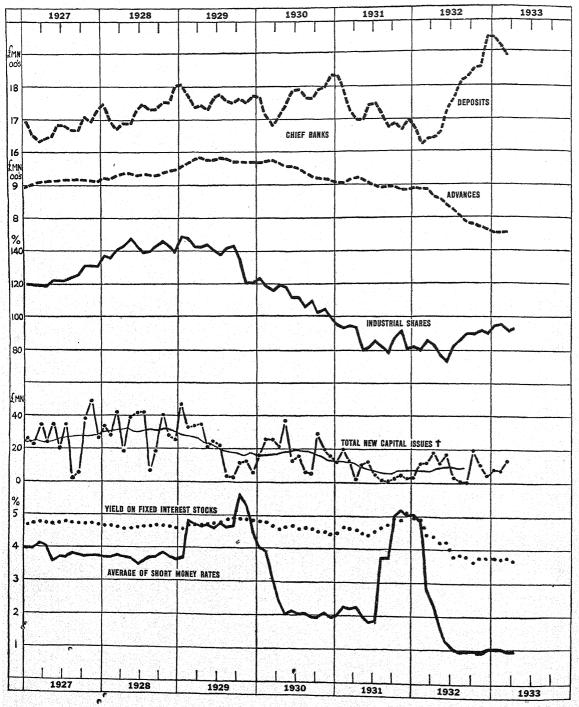
For Table of Exchanges see p. 13.

** From 1929 first figure Bankers, second figure Others.

‡ Issues amalgamated Nov. 22, 1928.

3

FINANCE.



† 12-months moving average superimposed.

	ST	ocks &	SHAR	ES	NE	w -	BANK	CLE	LBING				OTE	ER B	ANKIN	īG.			· 1	Ŋ	IONEY	- 1
	Indus		Fix		CAPI	TAL	Londo Clear	n Banl	ers'	Pro- vincial	Ban Engl				9 Clea Ban				BILLS	lex.	Fe	9
	New I	Sensitive Index Month-to-Month Variations	Index of Price	e Index of Yield	for U.K.	for Abroad.	Tow		Country.	11 Towns.	Private Deposits.	Bank and Currency Notes. t	Deposits.	Discounts.	Advances.	Invest- ments.	Ratio of Cash to Deposits.	Ratio of Advances to Deposits.	TREASURY I	Short Money Index	Day to day rate.	3 months' rate.
1924	%	%	/0	%	£Mn.	£Mn.	£M	n	£Mn.	EMn.	£Mn.	£Mn.	£Mn.	£Mn.	£Mn.	£Mn.	%	%	£Mn.	55.	%	%
Average 1926	100	•••	100	100	7.4	11.2	2070	*	226	147	109	390	1632	242	791	324	11.7	48.5	601	100	2.43	3.45
1st Qr. Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	114 113 114 116		96·8 97·0 96·2 95·5	103·3 103·1 103·9 104·7	14·7 8·1 8·5 15·7	11·3 9·8 6·2 10·2	2070 2100 1990 2150	1980 2050 2125 2170	231 219 205 226	141 123 117 128	107 103 108 104	371 381 374 371	1610 1600 1634 1662	209 195 226 225	866 875 874 887	255 244 247 251	11·7 11·9 11·8 11·8	53·8 54·6 53·5 53·4	611 578 624 667	140 137 137 140	4·15 3·92 3·95 4·02	4·54 4·37 4·40 4·63
1927 1st Qr. Av 2nd , , , 3rd , , , 4th , , ,	119 121 124 131	•••	97:0 96:6 96:6 97:3	102·9 103·5 103·5 102·8	17·8 16·5 7·2 17·2	9·8 5·8 6·8 20·4	2228 2253 2040 2240	2125 2200 2180 2260	251 238 224 238	135 131 129 140	105 98 100 101	364 377 376 376	1660 1659 1672 1711	220 200 211 233	803 913 919 916	245 237 236 236	11.6 11.7 11.5 11.5	54·5 55·1 54·9 53·5	642 576 609 651	135 127 126 125	3·91 3·68 3·66 3·59	4·23 4·07 4·33 4·32
1928 1st Qr. Av 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	138 145 141 143		98·6 100·4 98·9 99·0	101·4 99·6 101·2 101·0	18·5 20·6 12·4 21·6	16·0 12·5 9·8 8 ·9	2320 2430 2240 2330	22 20 2 3 70 2 390 2 350	237 242 227 242	138 133 122 132	105 100 102 101	375	1706 1703 1738 1770	226 210 251 252	923 934 932 942	241 232 239 243	11·1 11·1 11·1	54·2 54·8 53·3 53·3	594 541 605 712	125 121 123 126	3·58 3·52 3·52 3·61	4·22 3·91 4·16 4·36
1929 1st Qr. Av 2nd ,, ,, 3rd ,, ,,	145 141		98·8 97·5 94·6	105·9 105·7	23·0 18·4 5·9	15·1 8·7 3·6	2410 2340 2340 2440	2300 2290 2500 2430	241 243 233 248	135 122 118	63+3 61+3 64+3	6 361 6 367	1775 1748 1764	249 201 227	968 981 979	247 244 242	10·7 10·9 10·8		755 722 768	149 158 158	4·39 4·45 4·36	4·97 5·26 5·43
OCT NOV DEC 1980	1	- 5·2 -11·3 + 0·5	93·9 94·1 94·5	106·3 105·8	4.0	4·0 6·6 1·2	2440 2450 2170 2340	2410 2265 2210	242 248 250	123 123 127	58+3	2 358 6 365	1765 1751 1773	227 231 227	971 970 971	241 235 236	10·7 10·6 11·3	55·0 55·4 54·8		189 177 151	5·27 5·38 4·64	6·22 5·66 4·80
JAN FEB MAR APR MAY JUNE	116 120 119	+ 0.3 - 4.6 - 2.6 + 6.5 - 3.4 - 7.0	95·5 96·1 98·1 100·3 98·4 97·7	104·2 102·0 99·7	16·9 11·9 17·8	18·2 9·4 9·4 20·1	2400 2770 2340 2360	2310 2670 2230 2410 2340	236 234 249	119 121 120 114 104 102	59+3 59+3 66+3 58+3	56 352 55 348 56 350 56 361 56 356 35 364	1767 1714 1682 1712 1742 1788	243 218 181 207 246 273	970 973 976 970 957 958	233 229 225 225 231 233	10.6 10.8 10.9 10.7	56·8 58·0 56·7 54·9	678 615 571 585	136 125 104 82 68 71	4·04 3·85 3·35 2·23 1·94 2·13	4·11 3·96 3·03 2·49 2·14 2·33
JULY . AUG SEPT OOT NOV	112 106 110 103 105	+ 0.6 - 7.2 + 6.0 - 9.9 + 2.8 - 5.8	99·7 99·2 99·7 101·3	100.4 100.9 100.4 98.7 96.3	13·1 3·5 2·4 12·8 11·5	3·3 3·1 2·6 17·7 8·4	2150 2100 2340 2220 2070	2290 2310 2440 2210 2040 2240	207 250 226	103 95 89 95 100 103	70+ 66+ 65+ 66+ 60+	36 364 34 367 34 358 36 357 33 355 33 372	1794 1767 1764 1791 1801 1839	310	952 936 927 924 920 915	250 255 257 265	10.6 10.6 10.5 10.5	53.0 52.6 51.6 51.1	648 649 656 672	69 69 65 65 70	1.88 1.96 1.69 1.65 2.04 1.52	2·37 2·29 2·09 2·11 2·23 2·30
DEC 1931 JAN FEB MAR APR MAY	96 94 95 94 80	- 4.0 - 3.5 + 2.7 - 3.0 -17.0	103.5 98.5 99.6 100.2	96:101:105:100:105:100:105:100:105:100:105:105	7·8 6·0 7·4 1·4	4·5 13·6 6·0	2210 2060 1960 2270 1980	2088 1980 1880 2170 2020	258 218 213 228 228 218	102 99 98 94 93	65+ 58+ 59+ 61+ 62+	33 350 34 347 33 350 35 354 34 353	1836 1782 1726 1698 1700	328 299 238 209 222	909 909 921 928 919	281 293 293 293 3 293 3 274	1 10.6 3 10.5 5 10.5 2 10.5 4 10.6	5 49·8 5 51·0 5 53·3 54·8 4 54·3	784 0 646 3 587 5 559	68 76 75 75 68	1.87 2.50 2.23 2.31 1.98	2·17 2·52 2·62 2·61 2·26 2·12
JUNE JULY AUG SEPT OCT NOV DEC	86 82 78 87 92	+ 8: - 6: - 3: +15: + 8:	101:1 99:1 97:1 8 92:1	5 98° 2 101° 9 102° 6 108°	7 2·3 3 1·6 9 1·3 1 2·5 5 4·3	2.9	1980 1690 1680 1430	2 10 2 1860 1750 1420 1360	218 202 192 217 217	96 87 79 98	66+ 58+ 58+ 70+		1744 1750 1708 1678 1688 1670	279 261 234 3 235 238	898 898 897 888	3 283 5 286 7 286 5 28 7 28	3 10. 3 10. 8 10. 8 10. 4 10.	3 51° 4 52° 2 53° 2 53° 2 53°	3 633 4 658 6 650 1 600 1 620	62 125 126 168 175	1.75 3.58 3.69 4.31 5.02	2·14 4·31 4·28 5·71 5·76
JAN FEB MAR APR MAY JUNE	82 80 86 83	+ 0: - 2: + 7: - 6: -11:	93· 2 93· 2 103· 2 104· 1 109·	4 107· 7 107· 4 97· 5 96· 4 91·	5 9: 2 9: 0 11: 0 9:6	3 2·6 L 2·6 L 1·6 3 8·6 3 3·6	3 1330 9 1750 0 1700 4 1640 4 1640	1250 1680 1630 1560 1680	208 5 214 0 216 0 215	101 98 102 95	69+ 70+ 73+ 73+ 78+	38 355 32 345 32 354 35 358 33 358 34 357	1677 1622 1639 1644 1662 1727	7 237 L 208 9 218 3 238 L 248	5 88 5 88 3 86 5 85	8 26 8 26 6 27 8 28	4 10. 6 10. 2 10. 4 10.	5 54· 4 54· 4 52· 6 51·	8 57 2 57 7 61 7 61	4 163 6 97 2 79 7 54	4 · 27 7 2 · 48 9 1 · 98 4 1 · 38	5·11 2·64 2·36 1·57
JULY AUG SEPT. OCT NOV DEC	83 86 90 90	+ 7: + 8: - 1: + 2:	120° 121° 126°	2 83· 5 82· 8 79· 9 81·	9 — 7 — 0 11:1 8 10:3	3 7:	1480 1470 9 1590 5 1890) 16%) 153) 158) 18 3	5 194 0 185 0 210 0 206	92 6 88 9 95	89+ 890+ 83+ 82+	34 366 34 366 33 362 35 361 33 359 34 372	176 181 182 185 185 194	3 373 6 399 3 389 9 38	3 80 0 78 9 78 9 77	3 34 9 36 2 39 2 40	8 10 7 10 6 10 9 10	4 44 4 43 2 42 2 41	2 79 2 85 2 87 5 86	1 3: 4 3: 2 3: 0 3:	5 71 2 65 4 71 3 69	·72 ·69 ·84 ·77
1933 JAN FEB MAR APR	96 92 93	- 0 ⁻	122· 1 123· 3 122· 3 125·	6 81 4 82 3 80	3 4·1 1 12·3 2	9 2·3 3 1·3	3 1590 2 1720) 165	0 213 0 204	101	106- 106-	+32 35 + 33 35 + 3 4 36 +35 37	5 191 4 188 6	7 38 6 34	4 75 6 75	3 48 4 49	92 10	·7 39 ·8 40	3 85	5 3 0 3 8 3	5 ·7/ 2 ·5 2 ·6	5 88 8 68

STOCKS & SHARES-NEW CAPITAL ISSUES-

† Exclusive of Investments in Affiliated Banks.

BANK OF ENGLAND-PRINCIPAL BANKS-TREASURY BILLS-SHORT MONEY INDEX-

BANK CLEARINGS-

Index Nos. of Prices and Yield as percentage of 1924 level; on 15th of month.

Sensitive Index.—Geometric Mean of monthly percentage changes.
Issues during month in Gt. Britain (a), for U.K. (b), for Abroad, excluding Government loans, etc.—See Issues during month in Gt. Britain (a), for U.K. (b), for Abroad, excluding Government loans, etc.—See MONTHLY REVIEW OF THE MIDLAND BANK, LTD.

Total of Town Clearings (i.e., excluding Metropolitan) of London Bankers' Clearing House for 3 weeks covering 2 Stock Exchange settlement days, Consols settlement day, and 4th of following month, Country Clearings of London Bankers' Clearing House and Provincial Clearings for 11 towns—proportionate totals for 24 working days, Deposits, other than public, 11th-17th of month.

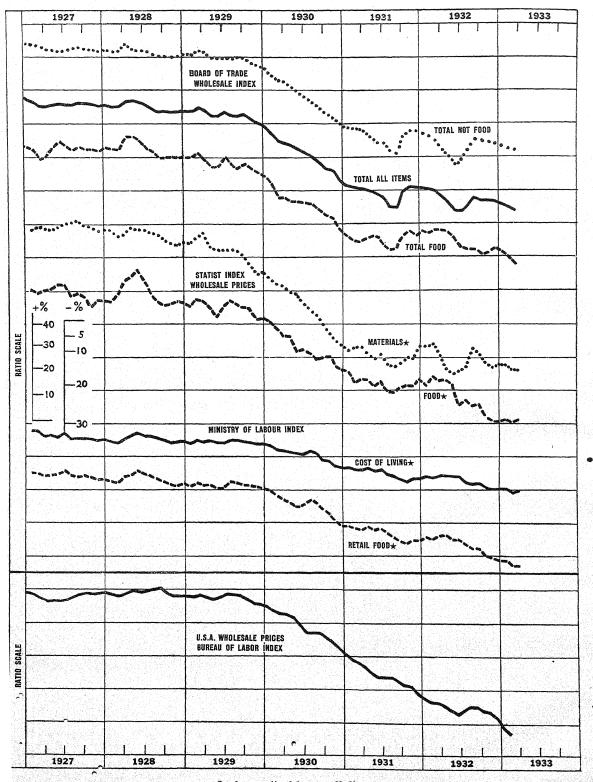
Bank Notes and Currency Notes in circulation 11th-17th of month, Issues amalgamated. November 22nd, 1928, Bank Notes and Currency Notes in circulation 11th-17th of month of 9 clearing banks (i.e.—excluding "Current, Deposit and other accounts," etc. Averages for the month of 9 clearing banks (i.e.—excluding the National Bank, 1td.).—MONTHLY REVIEW OF THE MIDLAND BANK, LTD.

Total outstanding in middle of month (11th-17th), Averages for Bank Rate, Bankers' Deposit Rate, 3 Months' Bill Rate and day-to-day rate for week ending 15th of month, expressed as percentage of 1924 average.

Day-to-Day Rate and 3 Months' Rate, Averages for week ending 15th of month.

For Table of Exchanges see p. 13.

PRICES.



Scale applicable to all lines.

* NORMAL SEASONAL CHANGE REMOVED.

Retail Index (Food)

100

Cost of Living Index*

100

B. OF LABOR

Wholesale Index General

100

				VHOLESAL	Е.					RET	AIL.		WAGES.
	Bar Silver (Cash).	General.	f Trade Ind Food.	Materials. etc.	Foo	Ma	Raw sterials.	Total.	Cos Livi	t of ng.	abour. Foo	8	New Index of Average Weekly Wages
	d. per oz.	%	%	%	%	%	%	%	%	% .	%	%	%
1924 erage.	34.0	100	100	100	100	¥	100	100	100	*	100	*	100*
.926 Qr. Av ,, ,,	31·0 30·2 29·1 25·2	88:6 87:2 90:2 90:4	92·8 93·1 92·5 93·9	86·3 84·1 89·0 88·5	91 92 93 90	90·5 91 93 91·5	92 89 90 94	92 90 91 92	98 96 98 101	97·5 98 98·5 99·5	96 94 95 99	96 96 95·5 95·5	100.5 100.5 100 100.5
927 Qr. A	25·3 26·1 25·5 26·4	85.6 84.8 85.1 84.8	90·8 91·6 91·3	82·9 81·2 81·6 81·5	89 91 87 85	88·5 90 87·5 85·5	88 87 88 89	89 89 88 87	97 94 94 97	96·5 96 95 94·5	94 91 93 96	94 94 93·5 92·5	101 101 101 100 ⁵
928 Jr. Av	26·3 27·0 27·0 26·6	84·6 86·1 83·8 83·1	91·5 95·3 90·4 89·2	81·1 81·4 80·5 79·9	89 94 86 85	88·5 93·5 86 85	86 87 84 84	88 89 85 85	94 94 94 95	94 96 95 9 3·5	92 91 92 93	92 94 92 90·5	100 100 99·5 99·5
929 Qr. Av ,, ,,	26·1 25·2 24·1	83·6 82·2 82·1	89·5 87·0 87·3	80·5 79·7 79·3	86 84 84 5	85 ·5 8 3 85	86 81. 80	86 82 82	94 92 9 3 5	93·5 93·5 94	90·5 82 90·5	90·5 90 91	99·5 99·5 99·5
7 7 930		81·9 80·6 79·7	87·2 85·6 84·6	79·1 78·0 77·1	82·5 80 81	8 3 ·5 81 81	78 76 76	80 78 78·5	95·5 95·5 95	9 3· 5 93 93	93·5 93·5 92	90·5 90 89·5	99 99 99
i 3 2 Y	20·2 19·2 19·5 19·2	78·8 76·9 74·9 74·4 73·3 72·6	83·4 81·0 77·7 77·6 76·5 76·6	76·3 74·7 73·4 72·6 71·5 70·4	80·5 79 76 77 73 72·5	80 78 76 76 72 72.5	74 73 72 70 69 66·5	77 75 74 73 71 69	94 92 90 89 88 88·5	92·5 91·5 91 90·5 90 90	90·5 88 84 82 81 83	88·5 87 86 85 84 84·5	99 98·5 98·5 98·5 98·25 98·25
Y T V	16·0 16·3 16·8 16·7 16·7	71.7 70.9 69.5 68.0 67.4 65.5	76:4 75:9 74:4 72:9 72:5 69:8	69·2 68·2 67·0 65·4 64·7 63·3	72 69.5 70 70 68 67.5	72 70 70·5 71 68·5 67·5	65 64 62.5 61.5 61	68 66 65 65 64 62·5	89·5 89·5 89·5 89·5 88·5 87·5	91 90 88:5 88 86 86	84·5 84·5 84 84·5 83 81	86 85·5 83 82 80 79	98·25 98·25 98·25 98·25 98·25 98·25
31 } R Y VE	13.8 13.0 13.1	64·3 63·9 63·7 63·6 62·8 62·1	68:1 67:1 66:6 67:4 67:8 67:7	62·4 62·1 62·1 61·5 60·1 59·1	67.5 65.5 66 66.5 65 65	67 65 65·5 65·5 64 65	58 59 58·5 57 55 56	61.5 61.5 61.5 61 59 59.5	87 86 84 84 83 84	86 85 85 86 85 85	80 79 76 76 75 76	78 78 77·5 78·5 77·5 78	98·25 97·75 97·75 97 97 97
Y F V	. 12.6 13.0 17.3 . 21.3	61·5 59·9 59·7 62·8 64·0 63·7	65.5 64.6 64.7 67.7 69.1 68.0	59·2 57·3 57·0 60·2 61·4 61·5	63 62 63 63 65-5	63 62:5 63:5 64 64 65:5	54 53 55 56:5 57:5 58:5	57·5 57 58 59 60 61·5	83 83 83 83.5 84.5 84	84 83:5 82:5 81:5 82:5 82:5	75 75 75 76-5 77-5	76.5 75.5 74.5 74.5 74.5 74.5	97 96·75 96·75 96·5 96·5 96·5
932 I B R E	19·4 18·1 16·7 17·1 16·9	63·4 63·4 63·0 61·6 60·6 58·9	69·0 68·7 69·5 69·2 68·8 66·8	61·0 60·7 59·7 57·8 56·5 55·0	64·5 67 65·5 66 65·5 59·5	64 66 65 65 64:5	58 5 59 5 57 54 52 5 52 5	61 62:5 60:5 59:5 57:6 55:5	81·5		77 76 74 73 72 73·5	75·5 75 76 76 76 75	96:25 95:75 95:75 95:75 95:75 95:75
7 IW M SE	17:0 18:2 18:0 17:7 18:1 17:3	58·8 59·9 61·4 60·8 60·8 60·8	64·9 64·5 64·6 63·6 64·0 64·8	55.7 57.6 59.7 59.3 59.1 58.7	61 59·5 59·5 56·5 56 56·5	61 60 60 57·5 57 56·5	54 57 56·5 55·5 55·5	56	80.5 80.5 81.5 81.5 81.5 81	81 80		7.1	95·5 95·5 95·5 95 94·75 94·75
N 33 Di R	16·8 16·6 18·0	60°3 59°5 58°7	64·1 62·8 61·4	58:4 57:8 57:4	57·5 57 57·5	57 56:5 57	55 54·5 54	56 55·5 55·5	80·5 79·5 78·5	79	70	70 69 69	94-75 94-25 94-25 94-25

104	111	102.5
102	110	102
101	107	101.5
100	111	102
97 [.] 5	108	100 5
96	107	100
97	105	99 5
98	107	100
98	104.5	98 5
99	105	98 5
100	106	99
98	108	98 5
98	106	98
97	105	98
98	110	99
97	110	99 [.] 5
95	109·5	98 [.] 5
95	108	97 [.] 5
94	106.5	97
93	105	96:5
92	103	96:5
92	104	95:5
90 5	103	95
88 5	101	93:5
86 86 86 84 5 83	99 99 100 99 97 94	93 94 93:5 92:5 91 89:5
80 78·5 77·5 76 74·5 73·5	91 87 86.5 85 83 81	88 87·5 87 85·5 84·5
73.5 73.5 72.5 71.5 71.5 70	81.5 82 82 81.5 80 78.5	84.5 84 83.5 82.5 82
68.5 67.5 67.5 67.6 65.5	75 72 72 71 69.5 68.5	79 78.5 77.5 76.5 76 76
65.5	69	75·5
66.5	69	75·5
66.5	69	75·5
65.5	69	75
65	68	74·5
64	68	74·5
62 61	65 62.5 = 62	72 [.] 5 71

PRICE OF SILVER-

Average (cash) price of bar silver for week ending 15th of month.-ECONOMIST.

BOARD OF TRADE INDEX—Geometric Mean of Wholesale Prices (averages for month) of 150 commodities as percentage of 1924 average.

BOARD OF TRADE JOURNAL. Average wholesale prices of 19 foodstuffs and 26 raw materials on last day of month, as percentage of average for 1924.—STATIST.

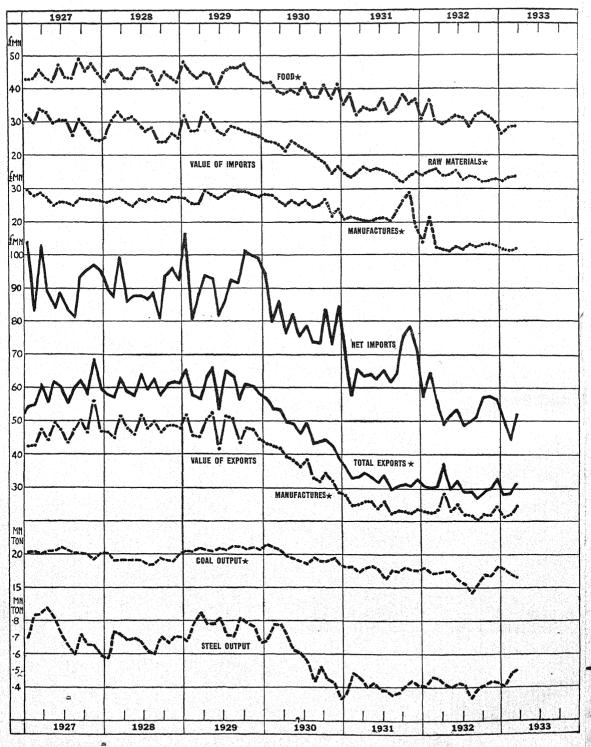
STATIST (SAUERBECK) COST OF LIVING INDEX-

Ministry of Labour's index showing movement since 1924 in cost of maintaining unchanged the standard of living prevalent in working-class households before the war. For 1st of month, but placed against previous month—e.g., reading for March 1st is shown against February—to facilitate comparison with "Statist" index.

RETAIL FOOD PRICES-WAGES INDEX-

As above, for food only. For description see Special Mem. No. 28

TRADE AND OUTPUT.



Scale applicable to all lines.

* NORMAL SEASONAL CHANGE REMOVED.

TRADE AND OUTPUT.

			тота	L IMI	PORTS	(Val	1es).		1	**************************************	EXP(RTS C	F U.	K. GO	ons	(Vaiues).		OT	TPUT		SHIP- B'LD'G.
	Foo Drink Toba	and	Ra Mate	w rials.	Ma factu		To (inclu Miscell		Total. NET IMPORTS.	Foo Drink Toba	and	Rav Mater		Ma factu		Tota (include Miscella	ding .	Coal.	Pig Iron.	Steel.	Tonnage Com- menced;
	£Mn.		£Mn.		£Mn.		£Mn.		£Mn.	£Mn.		£Mn.		£Mn.		£Mn.		Mn.	Tons 000	000	Tons 000
Average.	47:6	*	33.3	*	25.0	*	106.4	*	94.8	4.7	*	8.9	¥	51.6	¥	66-8	*	21.2	520	641	263
1926 1stQr.4v 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	40·8 43·8	47·1 41·8 45·2 42·9	35·0 28·4 30·5 37·0	32·2 30·7 35·3 28·6	24·2 26·3	25·8 24·2 26·7 28·6	107·1 93·7 101·0 112·5	105·4 97·1 107·8 104·9	94·8 83·9 92·4 101·6	4·2 3·6 4·3 4·6	4·4 4·0 4·3 4·1	6.7 3.8 2.0 3.2	6·7 3·9 2·2 3·2		50·1 42·7 44·8 41·7	63·2 49·5 52·6 52·0	62·6 51·8 52·6 50·7	21·5 —† — —	499 207 13 38	665 245 56 161	193 168 68 152
1stQr.Av. 2nd ,, ,, 3rd ,, ,, 4th ,, ,,	43.9	44.0 44.4 45.4 46.0	34·7 28·6 25·1 28·9		25.5	28·8 26·1 25·9 26·6	107·0 98·8 95·0 105·9	105·2 101·8 100·7 99·0	96·5 87·2 86·1 95·8	4:1 3·8 4·5 5·0	4·3 4·2 4·4 4·5	6.7 6.7 5.9 6.2	6.6 6.3 6.0	44·8 45·6 47·1 50·6	44·0 47·4 46·9 49·8	56·8 57·3 58·7 63·5	56·1 59·3 58·9 62·0	21·1 20·3 19·3 20·0	524 631 558 527	782 799 648 629	580 437 370 377
1'28 1st \r.Av. 2nd ., ., 3rd ., ., 4th .,	43.2	44.6 44.2 44.3 43.8	32·1 28·3 23·0 28·3	29·5 30·6 26·5 25·2	26.2	26.6 25.9 26.6 26.0	103·2 98·5 93·6 103·7	101·1 101·5 98·9 96·2	92·2 87·1 85·6 94·1	4·3 3·9 4·7 5·2	4·5 4·2 4·7 4·6	6·0 5·9 5·3 6·2	5·9 5·8 5·6 6·0	49·1 46·5 48·2 49·2	47·7 48·4 48·0 48·3	60·6 57·8 59·9 62·8	59·3 60·1 60·0 61·2	20·3 18·9 17·8 19·6	524 529 475 497	672 676 636 688	342 279 245 432
1929 1stQr.Av. 2nd ,, ,, 3rd ,, ,	42·1 44·3	44·9 43·2 45·8	23.9		25·7 28·6 28·4	25·8 28·2 28·9	102·0 99·7 97·7	100·4 102·5 103·4	91·9 89·6 89·7	4·0 4·5 4·7	4·2 4·9 4·7	6·3 6·9 6·5	6·2 6·8 6·8	48·4 46·3 48·7	47.5 48.0 48.4	60·4 59·2 61·5	59·7 61·2 61·6	21.6 20.3 19.9	521 592 614	763 786 741	362 428 360
OCT NOV DEC 1930	48·5 46·6	47·8 44·5 43·4		27·1 26·6 25·3	30·2 28·2 27·8	29·1 28·3 27·8	110·3 108·2 106·4	105·5 101·4 97·3	101·1 100·0 98·6	5·4 5·7 4·9	4.7	7·1 6·9 6·2	6·8 6·7 6·0		47.9 47.2 44.7	64.6 63.1 58.4	61.2 60.5 58.1	20.6 21.3 20.9*	622 589 581	783 763 661	} 499
JAN FEB MAR APR MAY JUNE	42.9 37.3 40.0 36.7 39.6 37.6	41.7 42.0 39.3 38.7 39.8 38.1	24·0 24·1 20·7		28.0 25.8 28.1 25.6 27.7 24.5		101.8 88.2 93.4 83.9 91.0 83.4	95.2 95.3 90.0 96.7 91.3 87.0	93·7 79·6 85·8 76·1 82·0 75·6	4·6 3·7 4·0 3·6 3·8 3·2	4.7 4.0 4.3 4.0 4.0 3.6	6.9 5.8 6.0 5.4 5.8 4.7	6.8 6.1 5.7 5.4 5.2 5.0	44.7 41.2 42.5 36.7 39.8 33.8	43·1 42·2 42·0 39·0 38·2 36·4	58·3 51·9 53·9 46·9 51·0 42·8	56.7 53.5 53.4 49.6 49.0 46.1	22·1 22·1 21·5 19·9° 19·3 18·0°	587 607 601 578 555 526	679 776 773 696 621 600	} 427 } 230
JULY AUG SEPT OCT NOV DEC		41.5 37.6 37.6 41.2 37.2 41.4	19·1 17·5 16·5 18·1 16·5 20·6	18.0	26·0 24·2 24·6 27·7 21·6 23·8	24·3 25·2 26·8	85·2 79·9 78·6 90·9 79·4 89·6	90.6 83.0 83.0 87.0 74.2 82.7	78.6 73.6 73.2 83.7 72.6 84.4	4·4 4·0 4·2 4·4 4·8 3·5	4.5 4.1 4.1 3.8 4.0 3.4	5·2 4·4 5·0 5·3 4·7 4·7	5·3 4·7 5·3 5·1 4·6	39·7 33·1 32·0 35·9 32·7 27·6	38·4 32·9 32·9 34·2 31·8 28·3	50·7 42·8 42·7 46·9 44·1 38·5	49·6 43·0 43·8 44·4 42·2 39·0	16.9 18.6° 18.2 18.7 19.8 18.7*	439 376 397 375 358 317	547 441 532 451 424 322	} 161 } 132
JAN FEB MAR APR MAY JUNE	36·2 30·0	35.2 33.8 32.0 34.2 33.5 33.8	13·3 15·1	14·5 16·6	20·4 19·5 22·3 20·9 21·0 20·2	21·3 20·8 20·3 20·1	75·5 63·7 70·6 70·0 69·6 68·6	71.5 69.4 68.0 72.2 69.6 71.3	65·2 63·4	3·7 2·8 3·0 2·9 2·8 2·6	3.7 3.0 3.2 3.2 2.9 2.9	3·7 3·8 4·1 4·1 4·0 4·0	3·7 4·0 3·9 4·1 3·6 4·2	28·7 24·0 25·6 24·3 26·0 21·7	27.7 24.6 24.7 25.9 25.6 23.4	37.6 31.8 34.0 32.5 33.9 29.4	36.6 32.8 33.1 34.4 33.2 31.6	18·4 19·2 18·2 18·2° 18·2 16·9	305 320 323 302 313 302	361 486 458 397 425 393	} 33 } 23
JULY AUG SEPT OCT NOV DEC	35·1 31·8 33·6 40·8 38·6	32·3 34·5 38·1 35·4	13.6 12.5 11.2 11.9 15.3 18.5	14.5 13.1 11.8 13.6		20.2 23.1 26.3 28.8	70·2 65·3 68·3 80·7 83·2 77·0	74.6 67.9 71.6 77.0 78.4 70.8	65·2 61·4 64·5 75·4 78·3 71·5	2·7 2·6 2·7 3·4 3·4 2·9	2.8 2.7 2.6 2.9 2.9 2.8	3·8 3·4 3·7 4·3 4·1 4·0	4.0 3.7 3.9 4.1 3.9 3.9	26·5 22·0 22·2 24·0 22·9 22·7	25.7 21.9 22.8 22.8 22.2 23.2	34·3 29·1 29·8 32·8 31·9 32·1	33·8 29·4 30·5 30·9 30·5 32·4	14·9 16·9 16·8 17·9 18·1 17·9	286 249 232 257 277 299	377 349 367 411 439 407	B
1932 JAN TEB	31·3 33·6 31·0 27·5 29·9	30°6 36°6	16·9 15·4 16·5 13·4 13·7	13·8 15·0 15·9	20·1 13·0 11·6	13:4 21:2 12:2 11:5 11:1 12:2	62·1 70·2 61·2 53·5 55·7 57·5	58·4 73·9 59·2 55·7 56·0 60·0	55.8 48.8 51.3	2·8 2·8 2·7 2·9 2·6 2·3	2:9 2:9 2:8 2:7 2:5	3.6 3.5 3.5 4.0 3.6 3.6	3·6 3·6 3·3 4·0 3·2 3·9	26.8		31·1 30·0 31·2 34·8 30·2 29·7	30·4 30·0 30·2 36·8 29·5 32·0	18.5 18.0 18.1° 17.7 17.3° 15.4	298 307 303 296 285 291	402 460 443 406 399 421	} 26
JULY AUG SEPT OCT NOV EC	28·2 30·6 35·1 34·4	31:0 28:6 31:4 32:8 31:5 29:9	11.7 11.2 11.9 13.7	12·3 13.6 13·1 11·8 12·1 12·7	13·1 12·1 13·5 13·2	11:7 13:1 12:4 13:1 13:3 12:7	51.9 53.3 54.3 60.8 61.6 60.6	55:4 55.6 57:3 58:0 57:2 55:5	49.8 51.4 57.1 57.5	2·3 2·6 2·5 2·9 3·2 2·8	2·47 2·7 2·4 2·5 2·7 2·7	3·5 3·4 3·2 3·9 4·1 3·9	3.6 3.7 3.4 3.7 3.9 3.8	21.7 19.8 22.7 22.5	21.7 21.5 20.3 21.6 21.8 24.2	29·3 28·6 26·2 30·4 31·1 32·4	29.7	14·4 13·6 15·0 16·8 17·0 18·6	264 234 243 249 250 257		10
JAN FEB VAR	25.2		13.2	************	10.5	11:6 11:5 12:0	54·1 49·1 56·3	50°7 63° 4 54°4	44.6	2·5 2·3 2·3	2·5 2·4 2·4	3·8 3·4 3·8	3·7 3·6 3·7	21.4	21·3 22·0 24·5	27.9	28.8	18·3 18·3 17·4	259 271 300		77

[†] Trade Dispute.

* NORMAL SEASONAL CHANGE REMOVED.

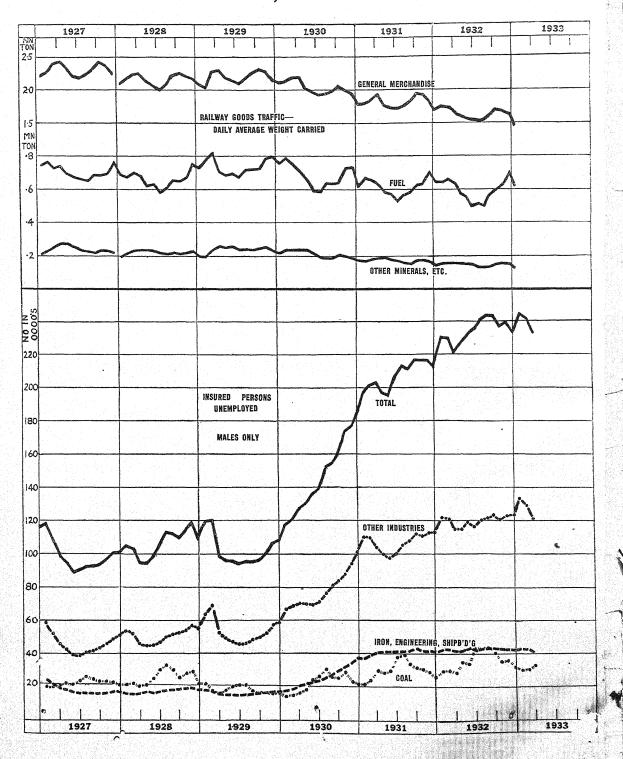
IMPORTS & EXPORTS—
Declared values of imports (c.i.f.) into U.K., and exports (f.o.b.) of U.K. produce and manufacture. Net imports—Total imports less exports of imported goods,—MONTHLY ACCOUNTS OF TRADE & NAVIGATION.

PIG IRON, STEEL OUTDUT or standard four-week month, based upon monthly figures issued by the NATIONAL FEDERATION OF INGOTS & CASTINGS IRON AND STEEL MANUFACTURERS, Tonnage of ships over 100 tons (excluding warships) commenced during the quarter.—L2OYD'S REGISTER OF SHIPPING.

Total for Qr. r

^{° 4} Weeks, excluding holiday week. * Excludes Christmas week, but includes New Year

TRANSPORT, UNEMPLOYMENT.



IKANSPORT.

UNEMPLOYMENT.

			SHIPPING.				RAIL	WAYS				INSUR (G:	ED P	ERSOI	NS UN	EMPL	OYED.:		
			of Ships argoes).	Inde	x of	Stand	reight ard Gan	Traffic	ilways.		Males.							Fem	
		Entered British	Time Charter Rates. Rates.		General,	Veight	Other Minerals	Re- ceipts. All Goods.	000 Total,	Coal.	O Iron & Steel.	S Engineering	Shipbuilding	S Building and Construction	Cotton and Wool.	§ § Other S Industries.	CO Total,	S Cotton and Wool.	
THE PERSON NAMED IN	1924 A verage	461 ×	544 ★	100	100	544	1743	551	8.89	941	72	52	116	78	99	35	344	263	62
	1926 1st Qr. Av. 21nd ,, ,, 31rd ,, ,, 4th ,, ,,	422 <i>477</i> 453 <i>453</i> 644 <i>596</i> 618 * 608	507 535 364 372 343 343 352 364	91 103 138	79 78 98 138	546 429 445 4 96	1778 667 336 1056	544 376 331 365	9·10 5·81 5·64 7·92	1003 1186 1314 1259	119 109 108 111	50 108 132 108	97 121 135 134	88 90 96 100	117 94 109 139	31 59 69 49	348 454 511 460	243 335 376 307	49 106 130 86
	19t Qr. Av 21hd ,, ,, 31d ,, ,, 4th ,, ,,	447 523 511 503 542 501 503 494	498 525 536 540 566 546 517 507	112 113 102 102	104 95 87 93	543 532 536 550	1754 1605 1595 1672	542 598 534 524	9·42 9·00 9·07 9·11	1082 913 929 990	201 220 243 217	41 39 41 49	97 75 67 69	73 54 48 46	134 82 92 147	29 24 29 31	356 296 295 303	236 175 194 196	46 39 48 49
and the same of th	1st Qr. Av 2nd ,, ,, 5nd ,, ,, 4h ,, ,,	449 502 516 506 531 491 516 507	502 523 535 5 39 564 544 545 534	93 90 93 113	84 83 86 96	521 496 501 530	1661 1478 1460 1630	506 536 505 516	8·95 8·34 8·37 9·84	1004 992 1108 1142	208 250 290 251	44 45 50 45	67 67 70 71	44 51 59 65	152 109 119 154	27 30 42 37	323 312 346 358	201 197 261 255	43 54 81 66
	1st Qr. Av. 2nd ,, ,,	438 495 530 523 591 547	518 <i>545</i> 576 <i>576</i> 621 <i>599</i>	110 107 115	93 85 83	495 514 520	1797 1608 1677	478 581 562	8·89 8·76 8·92	953 953 953	176 192 179	40 38 40	71 63 65	53 46 49	200 107 111	36 38 39	377 324 327	253 221 240	60 68 75
	OCT, NOV DEC	583 <i>53</i> 7 513 <i>523</i> 494 <i>500</i>	622 591 586 572 517 527	104 96 88	77 77 70	579 536 477	1811 1845 1756	606 573 495	9·69 9·33 8·24	1005 1061 1075	165 153 156	41 47 45	68 70 70	51 49 48	143 172 181	36 40 42	339 356 359	249 265 269	69 69 73
	JAN. FEB. MAR. AMRIL MAY JUNE	480 518 427 538 484 518 498 530 579 554 581 548	581 603 496 559 533 53 5 525 551 598 574 534 541	83 84 84 86 86 66	66 64 61 66 58 62	527 468 512 484 501 436	1892 1743 1755 1563 1621 1318	537 503 540 506 465 485	9·13 8·41 8·92 8·19 8·65 7·27	1173 1209 1267 1301 1357 1396	138 142 155 177 235 254	48 47 55 64 63 63	79 85 91 98 100 107	49 50 55 55 58 62	197 195 177 160 147 147	56 63 67 71 85 91	411 425 456 465 461 469	348 374 427 460 499 515	104 121 135 151 185 202
	JULY ATG. SIPT OFT NOV DEG	605 551 564 515 588 559 557 513 496 506 512 518	571 561 589 565 579 550 581 552 511 498 489 498	71 71 79 — 64	61 70 68 62 68 71	483 440 474 515 449 438	1480 1434 1529 1603 1640 1692	485 413 456 512 439 418	8·20 7·54 8·17 8·76 8·18 8·11	1519 1546 1605 1735 1771 1847	301 252 246 282 225 210	71 80 83 91 98 109	114 125 137 151 158 173	65 70 76 82 86 92	160 166 178 200 232 246	102 105 103 96 96 115	499 532 552 581 610 647	551 573 584 584 598 653	213 217 207 197 192 219
	JAN. FJB. MAR. A'RIL JAY		469 486 423 477 466 467 465 4 89 504 484 507 513	64 — 59 54 56 56	70 65 66 67 70 64	437 395 445 427 396 415	1533 1471 1571 1430 1324 1380	410 367 417 401 419 421	7·99 7·37 8·01 7·49 7·05 7·38	1972 2017 2028 1968 1957 2068	208 239 292 278 288 377	99 99 102 101 100 101	178 187 192 194 196 199	95 101 107 108 110 110	288 274 247 220 207 214	112 104 90 93 92 100	697 714 701 683 677 685	691 680 638 625 621 639	211 202 181 184 185 202
	ILY IG. S PT OVT NOV. A. DEC		536 527 502 482 502 477 538 511 460 449 460 469	58 55 55 77 71 71	62 63 62 73 74 72	430 395 440 479 445 423			7:42 6:87 7:63 8:06 7:53 7:64	2128 2118 2173 2168 2167 2132	387 328 316 302 283 257	97 102 105 95 97 96	202 203 210 205 200 197	111 114 113 115 117 117	235 245 264 302 328 342	107 110 114 81 72 69	705 722 738 726 721 713	679 695 707 625 568 538	213 219 222 161 132 121
,	JAN. FEB. MAR. AI'RIL MAY JUNE	. 445 480 483 588 440 471 435 463 477 456 513 483	467 484 422 459 439 440 446 469 426 409 465 471	51 51 51 71 71	69 69	384 366 359 340 343	1383 1321 1205 1222	338 326 328 320 322	6·90 6·64 6·44 6·04 6·08	2304 2300 2211 2270 2323 2358	288 294 281 344 337 424	100 101 100 101 107 100	206 206 201 204 211 207	117 116 114 113 115 114	384 381 349 332 326 327	73 71 66 71 96 89	762 755 732 743 774 749	551 509 449 457 499 485	124 112 99 109 149 142
	JULY AUG SEPT OCT NO V	513 469 491 467 483 445 435 444	480 472 450 432 477 453 435 413 441 430 429 437	45 55 61 58 62	64 65 65	336 321 337 356 373 367 327	1065 1100 1242 1303 1390	266 278 284 310 330	5.81 5.47 5.73 6.14 6.38 6.55 6.12	2416 2439 2437 2373 2395 2336	355 355	102 103 99 100 98 94	212 212 216 215 213 209	115 116 116 115 114 115	351 351 368 379 392 403	89 95 93 70 67 68	765 770 771 757 765 761	505 508 488 437 454 440	104
	JAN FLB	. 403 508	440 <i>456</i> 409 <i>461</i> 443 <i>444</i>	60 61		320	1360	270	6.02	2455 2420 2339	299	94 93 91	215 213 206	115	457 426 359	72	796	500 495 482	

m after 1931, .'. 13 returns for year.

Excluding any disqualified for benefit by trade dispute.

* NORMAL SEASONAL CHANGE REMOVED.

§ Excludes Commerce, etc.

VSPORT:
HIPPING ENTERED
AND CLEARED
HIPPING FREIGHTS
ALLWAY TRAFFIC—
WEIGHT
RECEIPTS

MPLOYMENT— NSURED PERSONS—

Tonnage of British and Foreign vessels entering and leaving British ports with cargoes during month.—BOARD OF TRADE MONTHLY ACCOUNTS OF TRADE & NAVIGATION.

Chamber of Shipping index numbers as published by "The Statist."—PREPARED BY DR. ISSERLIS.

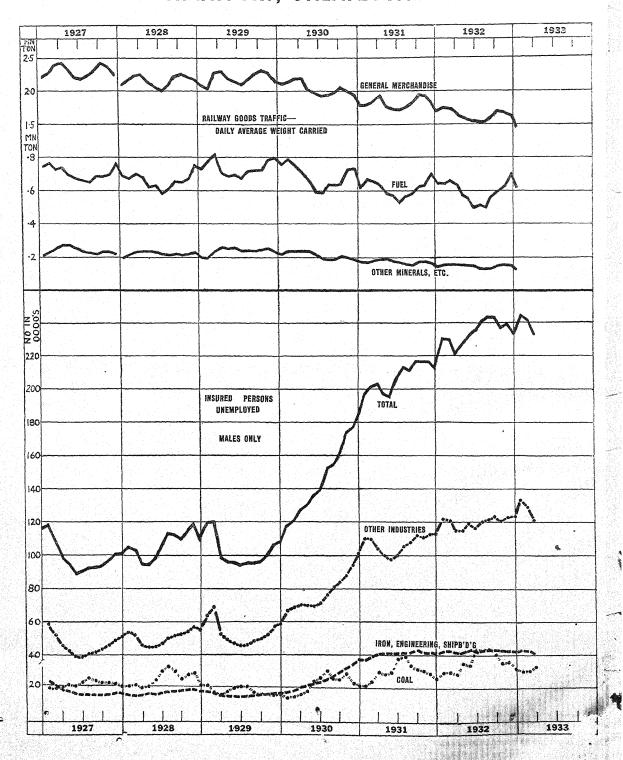
Tonnage of goods carried on the Railways of Great Britain during the month, excluding free-hauled.

Monthly Receipts for goods traffic, excluding cost of collection and delivery till January, 1928, then excluding receipts for collection and delivery.—MINISTRY OF TRANSPORT.

Number of books ledged at Labour Exchange on or about 25th of month.

MINISTRY OF LABOUR GAZETTE.

TRANSPORT, UNEMPLOYMENT.



IKANSPORT.

UNEMPLOYMENT.

Career Polymore			SHIPPING		RAILWAYS.	INSURED PERSONS UNEMPLOYED.; (Great Britain and North Ireland).										
and the same			of Ships largoes).	Index of	Freight Traffic Standard Gauge Rai	lways.	-	Males.								les.
		Entered	Cleared Ports.	Time Rates. Rates. Freight	General General General Fuel Other Winerals	Re- ceipts. All Goods. £ Mn	000 Total.	Coal.	O Iron & Steel.	S Engineering	Shipbuilding	S Building and Construction.	Cotton and Wool.	§ Other Industries.	Total,	Cotton and
1	1924 Verage	461 ¥	544 *	100 100	544 1743 551	8·89	941	72	52	116	78	99	35	744	000	000
1 00 10	1926 St Qr. Av.	422 <i>477</i> 453 <i>453</i> 644 <i>596</i> 618 * 608	507 535 364 372 343 343 352 364	91 79 — 78 103 98 138 138	546 1778 544 429 667 376 445 336 331 496 1056 365	9·10 5·81 5·64 7·92	1003 1186 1314 1259	119 109 108 111	50 108 132 108	97 121 135 134	88 90 96 100	117 94 109 139	31 59 69 49	348 454 511 460	243 335 376 307	49 106 130 86
	1927 1st Qr. Av 2nd ,, ,, 5nd ,, ,,	447 <i>523</i> 511 <i>503</i> 542 <i>501</i> 503 <i>494</i>	498 525 536 540 566 546 517 507	112 104 113 95 102 87 102 93	543 1754 ₂ 542 532 1605 598 536 1595 534 550 1672 524	9·42 9·00 9·07 9·11	1082 913 929 990	201 220 243 217	41 39 41 49	97 75 67 69	73 54 48 46	134 82 92 147	29 24 29 31	356 296 295 303	236 175 194 196	46 39 48 49
	1928 1st Qr. Av 2nd ,, ,, 3nd ,, ,, 4th ,, ,,	449 502 516 506 531 491 516 507	502 523 535 639 564 544 545 534	93 84 90 83 93 86 113 96	521 1661 506 496 1478 536 501 1460 505 530 1630 516	8·95 8·34 8·37 9·84	1004 992 1108 1142	208 250 290 251	44 45 50 45	67 67 70 71	44 51 59 65	152 109 119 154	27 30 42 37	323 312 346 358	201 197 261 255	43 54 81 66
	1st Qr. Av. 2sd ., ., 3sd ., .,	438 495 530 523 591 547	518 <i>545</i> 576 <i>576</i> 621 <i>599</i>	110 93 107 85 115 83	495 1797 478 514 1608 581 520 1677 562	8·89 8·76 8·92	1122 953 953	176 192 179	40 38 40	71 63 65	53 46 49	200 107 111	36 38 39	377 324 327	253 221 240	60 68 75
	OCT NOV DEC	583 <i>537</i> 513 <i>523</i> 494 <i>500</i>	622 591 586 572 517 527	104 77 96 77 88 70	579 1811 606 536 1845 573 477 1756 495	9·69 9·33 8·24	1005 1061 1075	165 153 156	41 47 45	68 70 70	51 49 48	143 172 181	36 40 42	339 356 359	249 265 269	69 69 73
	Jan. Feb Mar Amril May June	480 5.18 427 538 484 518 498 530 579 554 581 548	581 603 496 559 533 635 525 551 598 574 534 641	83 66 84 64 84 61 86 66 86 58 66 62	527 1892 537 468 1743 503 512 1755 540 484 1563 506 501 1621 465 436 1318 485	9·13 8·41 8·92 8·19 8·65 7·27	1173 1209 1267 1301 1357 1396	138 142 155 177 235 254	48 47 55 64 63 63	79 85 91 98 100 107	50 55 55 58 62	197 195 177 160 147 147	56 63 67 71 85 91	411 425 456 465 461 469	348 374 427 460 499 515	104 121 135 151 185 202
	JULY AIG SIPT OCT N)V DIO	564 515 588 559 557 513 496 506	571 56.1 589 56.5 579 55.0 581 55.2 511 498 489 498	71 61 71 70 79 68 — 62 — 68 64 71	483 1480 485 440 1434 413 474 1529 456 515 1603 512 449 1640 439 438 1692 418	8·20 7·54 8·17 8·76 8·18 8·11	1519 1546 1605 1735 1771 1847	301 252 246 282 225 210	71 80 83 91 98 109	114 125 137 151 158 173	65 70 76 82 86 92	160 166 178 200 232 246	102 105 103 96 96 115	499 532 552 581 610 647	551 573 584 584 598 653	213 217 207 197 192 219
	JN. FIB. MR. A'RIL JAY	. 459 <i>489</i> . 511 <i>489</i>	469 486 423 477 466 467 465 489 504 484 507 513	64 70 65 59 66 54 67 56 70 56 64	437 1533 410 395 1471 367 445 1571 417 427 1430 401 396 1324 419 415 1380 421	7·99 7·37 8·01 7·49 7·05 7·38	1972 2017 2028 1968 1957 2068	208 239 292 278 288 377	99 99 102 101 100 101	178 187 192 194 196 199	95 101 107 108 110 110	288 274 247 220 207 214	112 104 90 93 92 100	697 714 701 683 677 685	691 680 638 625 621 639	211 202 181 184 185 202
	LY IG S PT OVT DIC	. 568 <i>519</i> . 534 <i>508</i> . 522 <i>480</i> . 498 <i>508</i>	536 527 502 482 502 477 538 511 460 449 460 469	58 62 55 63 55 62 77 73 71 74 71 72	430 1335 421 395 1271 350 440 1399 366 479 1531 415 445 1459 394 423 1609 372	7·42 6·87 7·63 8·06 7·53 7·64	2128 2118 2173 2168 2167 2132	387 328 316 302 283 257	97 102 105 95 97 96	202 203 210 205 200 197	111 114 113 115 117 117	235 245 264 302 328 342	107 110 114 81 72 69	705 722 738 726 721 713	679 695 707 625 568 538	213 219 222 161 132 121
	JAN FEB MAR APRIL MAY JUNE	. 445 480 . 483 588 . 440 471 . 435 463	467 484 422 459 439 440 446 469 426 409 465 471	51 62 51 65 51 69 71 69 71 66 — 58	376† 1412† 316† 384 1408 338 366 1383 326 359 1321 328 340 1205 320 343 1222 322	6:67† 6:90 6:64 6:44 6:04 6:08	2304 2300 2211 2270 2323 2358	288 294 281 344 337 424	100 101 100 101 107 100	206 206 201 204 211 207	117 116 114 113 115 114	384 381 349 332 326 327	73 71 66 71 96 89	762 755 732 743 774 749	551 509 449 457 499 485	124 112 99 109 149 142
	JULY: AUG SEPT OCT NOV DEC	513 469 491 467 483 445 435 444	480 <i>472</i> 450 <i>432</i> 477 <i>453</i> 435 <i>413</i> 441 <i>430</i> 429 <i>437</i>	- 56 45 59 55 64 61 63 58 65 62 67	336 1101 309 321 1065 266 337 1100 278 356 1242 284 373 1303 310 367 1390 330 327 1418 286	5·81 5·47 5·73 6·14 6·38 6·55 6 ·12	2416 2439 2437 2373 2395 2336	355	102 103 99 100 98 94	212 212 216 215 213 209	115 116 116 115 114 115	351 351 368 379 392 403	89 95 93 70 67 68	765 770 771 757 762 761	505 508 488 437 454 440	145 153 138 104 100 97
	JAN FLB R	440 <i>475</i> 403 <i>508</i> 476 <i>510</i>	440 <i>456</i> 409 <i>461</i> 443 <i>444</i>	60 64 61 63 — 60	320 1360 270	6.02	2455 2420 2339	299	94 93 91	215 213 206		457 426 359	72 72 72	805 796 773	500 495 482	

x after 1931, .. 13 returns for year.

Excluding any disqualified for benefit by trade dispute.

* NORMAL SEASONAL CHANGE REMOVED.

\$ Excludes Commerce, etc.

NSPORT:
.HIPPING ENTERED
AND CLEARED
.HIPPING FREIGHTS—
AILWAY TRAFFIC—
WEIGHT
RECEIPTS

Tonnage of British and Foreign ressels entering and leaving British ports with cargoes during month.—BOARD OF TRADE MONTHLY ACCOUNTS OF TRADE & NAVIGATION.

Chamber of Shipping index numbers as published by "The Statist."—PREPARED BY DR. ISSERLIS.

Tonnage of goods carried on the Railways of Great Britain during the month, excluding free-hauled, Monthly Receipts for goods traffic, excluding cost of collection and delivery till January, 1928, then excluding receipts for collection and delivery.—MINISTRY OF TRANSPORT.

Number of books lodged at Labour Exchange on or about 25th of month,

EMPLOYMENT— INSURED PERSONS—

MINISTRY OF LAROUR GAZETTE.

UNITED STATES

For description of series see BULLETIN, April 23rd, 1932, page 126.

darager,	Tan and the same	ы .		F.R.Me	mber I	Banks	Bank	Debits		IN'	r. ra	TES	40	G.	TRA	IDE	Li	RODU	CTIO	N .	d de	. Pg	
CHANGE CONTRACTOR CONT		Discourts & Re-discounts	Acceptances & Securities	Demand, Deposits	Loans & Discounts	Investments	New York City	Outside New York	Gold Move- ments	New York F.R. Bank	Call Loans	Prime Comm' Paper	New Securities	DowJonesInd Shares Index	Exports of U.S. Produce	General Imports	Industrial Index	Automobiles	Pig-Iron	Steel Ingots	S U.S. Steel Corp S Unfilled Order	Building Contracts Award	Freight Car Loadings
Change		Mn	.\$		Mn. \$		10 M		Mn. \$	%	%	%	Mn. \$	%	Mr	Distance	%	000	0000		tons	Mn. \$	0000 22
PROTECTION OF STREET,	1920 1st Qr. Av. 2nd Qr. Av. 3rd Qr. Av. 4th Qr. Av.	906 979 1036 880	2 578 299 298 623	3 1331 1311 1323 1438	1636 1652 1715 1809	5 600 575 547 556	5214 4710 4953 5226	2692 2658 2803 2920	8 32.5 25.6 23.6 -23.4	9 5·0 5·7 5·2	10 7·74 8·50 8·65 5·57	5.43 5.93 6.05 5.55	12 1060 1044 1150 612	282 285 324 243	14 466 393 400 459	374 388 355 346	120 125 122 108	17 484 591 472 206	18 345 375 368 320	19 463 505 477 365	20 422 433 388 431	21 417 587 529 388	405 449 477 430
	1st Qr. Av. 2nd Qr. Av. 3rd Qr. Av. 4th Qr. Av. 1931	384 543 210 252	783 740 761 824	1307 1357 1375 1391	1667 1692 1693 1649	561 593 636 674	3553 3791 2734 2742	2407 2447 2180 2217	39·8 34·4 - 12·2 31·4	2·5 2·5 2·5 2·03	4·22 3·25 2·20 2·08	4·57 3·70 3·05 2·93	755 970 456 374	242 242 211 167	370 310 288 293	298 281 222 220	107 105 91 84	333 399 217 149	297 312 248 190	406 387 297 2 3 2	451 413 371 369	366 514 349 280	376 398 399 358
	JAN FEB MARCH. APRIL MAY JUNE	253 216 176 155 463 188	853 705 727 773 743 731	1368 1361 1375 1366 1361 1369	1575 1546 1538 1499 1473 1469	684 718 755 790 781 779	2456 2095 2759 2682 2507 2589	2170 1708 1942 1962 1886 1941	34·4 16·1 25·6 49·5 49·6 63·8	2:0 2:0 2:0 2:0 1:5 1:5	1.57 1.50 1.55 1.52 1.45 1.50	2·76 2·62 2·55 2·38 2·20 2·02	649 222 699 590 426 402	154 165 166 148 130 126	246 221 231 210 199 183	183 175 210 186 180 174	82 87 89 90 89 83	172 220 276 337 317 251	171 171 203 202 199 164	246 250 299 272 251 208	413 397 400 390 362 348	228 235 370 337 306 332	349 284 294 299 374 299
	JULY AUGUST SEPT OUT NOV DEC.	109 222 280 613 695 7 74	753 847 995 1425 1287 1117	1347 1324 1323 1245 1220 1187	1449 1440 1419 1352 1335 1310	781 766 792 770 751 743	2101 1750 2007 2068 1446 1923	1844 1653 1663 4813 1461 1711	19·5 57·5 20·6 -337·7 89·4 56·9	1.5 1.5 1.5 3.5 3.5 3.5	1.50 1.50 1.50 2.10 2.50 2.63	2·02 1·96 2·00 2·98 3·75 3·75	271 127 312 45 129 119	130 127 108 93 95 74	177 161 177 201 190 181	175 167 170 169 150 153	80 78 77 75 73 68	218 187 141 80 69 122	146 128 117 117 110 98	189 172 155 159 159 130	340 317 314 312 293 274	286 233 251 242 151 137	293 375 291 381 262 223
	JAN. FEB. MARCH APRIL MAY JUND	486	980 894 914 1066 1454 1747	1145 1100 1094 1114 1110 1093	1286 1259 1221 1188 1163 1126	714 700 714 715 738 749	1768 1438 1616 1556 1291 1420	1590 1287 1373 1437 1250 1291	-75.0 -90.6 -26.7 -30.5 -195.5 -207.7	3·5 3·5 3·0 3·0 3·0 3·0	2·74 2·50 2·50 2·50 2·50 2·50 2·50	3·75 3·72 3·50 3·30 2·96 2·64	194 94 190 142 123 142	72 73 74 57 49 43	147 151 152 132 129 110	135 131 131 127 112 111	71 71 68 64 61 59	119 117 119 148 184 183	97 96 97 85 78 63	146 146 141 124 111 90	265 255 247 233 218 203	85 89 112 122 146 113	227 225 229 277 209 197
	JULY	387 328 315	1878 1887 1882 1885 1885 1888	1075 1098 1123 1146 1174 1176	1100 1080 1071 1044 1041 1030	770 774 820 858 859 851	1273 1346 1416 1294 981 1397	1251 1176 1177 1235 1094 1282	- 7·1 + 6·1 +27·9 +20·6 +21·7 +101·9	2·5 2·5 2·5 2·5 2·5 2·5	2:06 2:00 2:00 1:38 1:0 1:0	2·33 2·08 1·99 1·72 1·54 1·39	154 170 141 122 75 158	42 61 66 58 57 54	104 107 130 151 137 129	79 91 98 106 104 97	56 59 68 68 65 60	111 90 84 49 60 107	57 53 59 64 63 55	79 83 98 107 101 84	197 197 199 200 197 197	129 134 128 108 105 81	242 207 225 316 220 249
	JAN. FEB: MARCH	255 307	1838	1190 1059	1017 963 -	856 820	1241 1204	1205 1040‡	+ 128·5 + 8 ·9 - 13·2	2.5	1:0 1:0	1·25 1·26	110 56	56 51 52 54†	119 99	96 83 95	64 65	130 107	57 55 54	100 107 .89	190 185 237	8 3 53	191 196

† 1st to 15th.

For prices see page 17.

! Michigan and Maryland banks closed part of month.

HARVARD FORECAST. [By Cable.]

April 18th, 1933.

bank crisis has been remarkably well to date, with results as favourable as d possibly have been anticipated, but the bank suspension nevertheless has taken its toll. Though helping to clear up the bad situation, it leaves numerous localities without adequate facilities, and exerts an adverse effect upon business. It has thus tended to delay the recovery in evidence at the opening of the year. A shrinkage of business activity in March was inevitable, but the rebound from a low point, to judge from weekly data, has come with great promptness. A very sharp advance in

the money curve of the index chart in March is a natural concomitant of the bank suspension, but money rates have recently eased, so that there will be a considerable decline of the curve in April.

The speculation curve is practicall unchanged.

Since debits figures upon which the buness curve is based are lacking for all but the last week in March, and evidence of decline. conclusive, we have omitted March figures the business curve.

Commodity prices continue above the lo point reached at the opening of March.